No. 85-1307

Supreme Court, U.S.
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IN THE

Supreme Court of the United States

OCTOBER TERM, 1985

NANTAHALA POWER AND LIGHT COMPANY, TAPOCO, INC., and ALUMINUM COMPANY OF AMERICA,

Appellants,

—v.—

STATE OF NORTH CAROLINA ex rel. UTILITIES COMMISSION; LACY H. THORNBURG, Attorney General, et al.,

Appellees.

ON APPEAL FROM THE SUPREME COURT OF NORTH CAROLINA

APPENDIX TO JURISDICTIONAL STATEMENT

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APPENDIX A

Letter Denying Nantahala Power and Light Company's Petition for Rehearing

[Letterhead of SUPREME COURT OF NORTH CAROLINA]

19 November 1985

Mr. Edward S. Finley, Jr.
Hunton & Williams
Post Office Box 109
Raleigh, North Carolina

Re: Utilities v Edminsten
No. 549A84

Dear Mr. Finley:

Nantahala's Petition for Rehearing and Motion to Reconsider Portion of Opinion has been filed and the following order entered:

"Denied by order of the Court in conference this the 5th day of November 1985.

s/ Billings, J.
For the Court"

Very truly yours,

/s/ J. GREGORY WALLACE
J. Gregory Wallace
Clerk of the Supreme Court

JGW:ktf
xc: Mr. Robert F. Page, Attorney at Law
Mr. Richard L. Griffin, Assistant Attorney General
Mr. James D. Little, Staff Attorney-Public Staff
Mr. David H. Permar, Attorney at Law
Mr. David R. Poe, Attorney at Law

APPENDIX B

Letter Denying Aluminum Company of America's Petition for Rehearing

[Letterhead of SUPREME COURT OF NORTH CAROLINA]

19 November 1985

Mr. David R. Poe
LeBoeuf, Lamb, Leiby & MacRae
520 Madison Avenue
New York, New York 10022

Re: Utilities v Edminsten
No. 549A84

Dear Mr. Poe:

Alcoa's Petition for Rehearing and Motion to Reconsider Portion of Opinion has been filed and the following order entered:

"Denied by order of the Court in conference this the 5th day of November 1985.

s/ Billings, J.
For the Court"

Very truly yours,

/s/ J. GREGORY WALLACE
J. Gregory Wallace
Clerk of the Supreme Court

JGW:ktf
xc: Mr. Robert F. Page, Attorney at Law
Mr. Richard L. Griffin, Assistant Attorney General
Mr. James D. Little, Staff Attorney-Public Staff
Mr. David H. Permar, Attorney at Law
Mr. Edward S. Finley, Jr., Attorney at Law

APPENDIX C

Opinion of The North Carolina Supreme Court

STATE OF NORTH CAROLINA EX REL. UTILITIES COMMISSION; NANTAHALA POWER & LIGHT COMPANY, APPLICANT. TAPOCO, INC. AND ALUMINUM COMPANY OF AMERICA, RESPONDENTS v. RUFUS L. EDMISTEN, ATTORNEY GENERAL. PUBLIC STAFF–NORTH CAROLINA UTILITIES COMMISSION; COUNTIES OF CHEROKEE, GRAHAM, JACKSON, MACON, AND SWAIN; TOWNS OF ANDREWS, BRYSON CITY, DILLSBORO, ROBBINSVILLE, AND SYLVA; TRIBAL COUNCIL OF THE EASTERN BAND OF CHEROKEE INDIANS; HENRY J. TRUETT, HOWARD PATTON, VERONICA NICHOLAS, O. W. HOOPER, JR., ALVIN E. SMITH, LARRY LYNN BAILEY; AND JACKSON PAPER MANUFACTURING COMPANY, INTERVENORS

No. 549A84

(Filed 13 August 1985)

APPEAL by intervenors pursuant to N.C.G.S. § 7A-29(b) from the final order of the North Carolina Utilities Commission entered 12 April 1984 in Docket No. E-13, Sub 44. Heard in the Supreme Court 11 March 1985.

This matter was initiated by Nantahala Power and Light Company ("Nantahala") on 1 February 1983 by the filing of an application with the North Carolina Utilities Commission (the "Commission") to adjust its rates so as to increase charges to its North Carolina retail customers by $1,443,000 and to revise its Purchased Power Cost Adjustment clause (PPCA) applicable to all retail electric rates.

In its latest application for a rate increase, Nantahala alleged that it should no longer be subject to the rate levels based on the roll-in performed in its last preceding rate case (Docket No. E-13, Sub 35) because its investments and expenses relative to its North Carolina retail rates had been "drastically altered" due to a new power supply agreement entered into between Nantahala and the Tennessee Valley Authority ("TVA"), effective 1 January 1983. The new contract was apparently intended to replace, insofar as Nantahala was concerned, the 1962 New Fontana Agreement ("NFA") between TVA, Alcoa, Nantahala, and Tapoco and the 1971 Nantahala-Tapoco Apportionment Agreement (the "1971 Apportionment Agreement") which expired by their respective

terms on 31 December 1982. Inequities under these expiring contracts, according to Nantahala, had formed the basis of the Commission's prior decisions to implement a roll-in of the properties, investments, and revenues of Nantahala and Tapoco and therefore their expiration and replacement with a new TVA-Nantahala supplemental power purchase agreement obviated the need for a roll-in to be performed in setting Nantahala's retail rates.

In addition to the foregoing "changed circumstance," Nantahala alleged that its present rates as established in Docket No. E-13, Sub 35, were unreasonably low and failed to provide a fair rate of return to the utility necessary to provide service and attract capital for construction and other capital projects. Finally, Nantahala stated that an immediate rate increase was imperative in the face of Alcoa's intention to file an application with the Commission[1] to sell all of its stock in Nantahala, "fully evidencing its desire and intent to divorce itself completely from any interest in Nantahala other than as a holder of certain subordinated debt," so that Nantahala could establish a record of financial stability and obtain long-term debt and equity financing to meet the demands of its customers and undertake new construction. The historical test year data submitted by Nantahala in the Sub 44 proceeding is for the twelve-month period ending 31 December 1981; evidence of its new power supply agreement with TVA, executed on 22 December 1982, was alleged by Nantahala to be admissible under N.C.G.S. § 62-133(c), which allows public utilities to file for Commission consideration such relevant, material, and competent evidence showing actual changes in costs, revenues, or the value of property "based upon circumstances and events occurring up to the time the hearing is closed."

The matter was treated as an application for a general rate increase under N.C.G.S. § 62-137; and various parties, including the Attorney General of North Carolina and the Public Staff of the North Carolina Utilities Commission, on behalf of the using and consuming public, and certain individual rate payers, were permitted to intervene in the proceedings. With the exception of intervenor Jackson Paper Manufacturing Company, all of the in-

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1. The record indicates that Alcoa has indeed carried through with its intention to apply to sell its interest in Nantahala to Nantahala's employees under an Employee Stock Option Plan filed in Docket No. E-13, Sub 51.

tervening parties (the "intervenors") moved to dismiss Nantahala's application on the basis of determinations contained in prior Commission Docket Nos. E-13, Sub 29 (Remanded) and Sub 35, in which a "roll-in" methodology of rate making was implemented, because the 1983 filing did not include Nantahala's parent, Aluminum Company of America ("Alcoa") and its affiliate, Tapoco, Inc. ("Tapoco") as parties and did not include financial data respecting Tapoco's rate base, expenses, and revenues. In the alternative, the intervenors moved to suspend the running of the 270-day hearing date period, defer the hearings, join Alcoa and Tapoco as parties, and requested consideration and implementation of the roll-in rate making methodology previously used by the Commission in setting Nantahala's intrastate retail rates. Jackson Paper Manufacturing Company's separate challenges to the proposed Nantahala rate increase do not concern the question of roll-in and will be treated separately herein.

Appeals by Nantahala, Alcoa, and Tapoco (the "companies") from the orders entered by the Commission in Docket Nos. E-13, Sub 29 (Remanded) and Sub 35, were pending at the time Nantahala initiated this third rate increase proceeding in a seven-year period. The Commission's orders in Sub 29 and Sub 35 have subsequently been affirmed by this Court in *Utilities Commission v. Nantahala Power and Light Co.*, --- N.C. ---, --- S.E. 2d --- (filed 3 July 1985; No. 227A83) (Docket No. E-13, Sub 29 (Remanded)), and *Utilities Commission v. Nantahala Power and Light Co.*, --- N.C. ---, --- S.E. 2d --- (filed 3 August 1985; No. 111A84) (Docket No. E-13, Sub 35). The essence of these prior orders was the Commission's determination that the hydroelectric facilities and properties of Nantahala and Tapoco constitute a single, unified electric system and should be treated as such, or "rolled-in," for retail rate making purposes, and its further determination that the single system's corporate parent, Alcoa, should be held financially responsible for excessive rates collected by Nantahala under the "stand-alone" rate making model previously used by the utility in computing Nantahala's retail costs of service and revenue requirements.

Following a hearing on the intervenors' motion to dismiss, the Commission issued an order on 22 April 1983 denying the motions to dismiss or delay the hearings on Nantahala's rate increase request. In addition, the Commission deferred its ruling on

the motions to join Alcoa and Tapoco as parties, and made the following conclusions concerning the intervenors' motions to dismiss:

> The Commission further concludes that the Supreme Court's decision in *Utilities Commission v. Edmisten, Attorney General*, 299 N.C. 432 (1980) is not the law in this case. The *Edmisten* case remanded Docket E-13, Sub 29, to consider whether it should adopt a roll-in rate-making device to "true-up" alleged rate-making benefits flowing to Alcoa from Nantahala by virtue of the Fontana and Apportionment Agreements. Since the Fontana Agreement expired on December 31, 1982, and has been replaced by a new power supply arrangement between Nantahala and TVA, it would not be appropriate at this time to consider a roll-in device in this docket until that issue is properly raised through evidence at the hearing.

However, the Commission took "judicial" notice of its past orders regarding the relationship between Alcoa and its subsidiaries Nantahala and Tapoco and concluded that the terms and conditions of the new power supply agreement between Nantahala and TVA should be fully explored at the hearing to determine whether Nantahala's customers are fairly treated under the new arrangements with TVA. Accordingly, the Commission directed Nantahala to supply certain data applicable to the roll-in issue, including its new power supply agreement with TVA, to the Commission and further directed Tapoco to "assist and cooperate with Nantahala" in providing this data.

The intervenors subsequently filed motions seeking judicial notice and application of the doctrine of res judicata to certain facts established in Docket Nos. E-13, Sub 29 (Remanded) and Sub 35 regarding the public utility status of Tapoco and Alcoa, the propriety of a roll-in rate making methodology for Nantahala and Tapoco and the liability of Alcoa for the financial obligations of its public utility subsidiary Nantahala. In an order entered 9 August 1983, the Commission directed that Alcoa and Tapoco be joined as parties so that the applicant and the intervenors might have the fullest opportunity to explore the issues raised by the rate increase request. However, the Commission denied the intervenors' motion requesting judicial notice and the application of the doc-

trine of res judicata to the relevant factual findings contained in the Commission's previous orders. Rather, the Commission concluded that "these facts should be a matter of proof at the hearing in this case." In addition, the Commission agreed to take judicial notice of any relevant orders in Docket Nos. E-13, Sub 29 (Remanded) and Sub 35, if so requested by any party at the hearing.

Thereafter, hearings were held before a panel of the Commission in late September and early October 1983. The intervenors' renewed motion for judicial notice and application of the doctrine of res judicata to the requested factual determinations was also denied and all parties were permitted to present evidence on these and other relevant issues. On 29 November 1983, the Commission panel issued a "Notice of Decision and Order" and on 22 December 1983, issued an "Order Granting Partial Rate Increase," establishing Nantahala's rates on a "stand-alone" basis and approving virtually all of the rate increases proposed by the company. The rate schedules approved by the Commission panel reflected an increase of $1,335,857 in base rates and authorized a base unit cost of approximately 1.13 cents per kWh for purchased power, excluding gross receipts tax.

By its rate orders, the Commission: (1) adjusted the test year (1981) data to account for certain circumstances and events up to the time of the close of the hearing in October 1983 including recognition of the two new power supply agreements with TVA on the one hand and Alcoa, Tapoco, and TVA on the other, and which became effective on 1 January 1983; (2) found that no direct benefits now accrue to Alcoa as a result of the 1983 Nantahala-TVA Interconnection Agreement and the 1983 Tapoco-TVA Exchange Agreement (the "Fontana III Agreements") and that if any indirect benefits flow to Alcoa thereunder, these indirect benefits do not appear to be the result of any unlawful preference having been shown to Alcoa by Nantahala; (3) found that rolled-in rates would result in insolvency or bankruptcy for Nantahala absent (a) an accompanying order from the appropriate federal jurisdiction requiring the physical sale of Tapoco power to Nantahala, or (b) a guarantee of Nantahala's financial integrity by Alcoa; (4) found that the Nantahala electric system should be treated independently of Tapoco; (5) failed or declined to find that either Alcoa or Tapoco were North Carolina public utilities; (6)

failed or declined to find that Nantahala's and Tapoco's properties form a single, unified electric public utility system; and (7) failed or declined to find that Alcoa so dominates Nantahala as to warrant piercing the corporate veil between them and holding Alcoa responsible for Nantahala's financial obligations. In addition, the Commission declined to approve the proposed rate schedule, LIS (Large Industrial Service), which Jackson Paper Manufacturing Company had requested.

Thereafter, the intervenors filed a motion that issuance of the final order be held in abeyance pending the final adjudication of the matters raised in (1) Docket No. E-13, Sub 51, in which Alcoa proposes to sell its stock interest in Nantahala to a group of Nantahala's salaried employees using a leveraged ESOP buy-out, and (2) the consolidated cases pending before the Federal Energy Regulatory Commission ("FERC") (Docket Nos. ER82-774-000, *et al.*), in which the companies are seeking permission to terminate the NFA and 1971 Apportionment Agreement and place into effect the Fontana III Agreements and in which the majority of the present intervenors, including the Commission itself, are seeking an order from the FERC allocating or requiring the sale of Tapoco power and energy to Nantahala. This motion was denied upon issuance of the final order in the Sub 44 proceeding.

The Full Commission, upon the intervenors' appeal, issued its final order on 12 April 1984 affirming the panel order granting the increase in rates and denying the intervenors' exceptions and motions for reconsideration. Two Commissioners dissented from the Full Commission's order, for the principal reasons that: (1) the Nantahala-Tapoco properties continue to form a single electric system; (2) Alcoa continues to dominate Nantahala and the veil of corporate separateness between them should be pierced; (3) Nantahala's rate payers have been and are being systematically deprived of the less expensive power produced by the "Alcoa System's" hydroelectric facilities; (4) the potential bankruptcy of Nantahala is not a real threat, but rather is a fiction propagated by Alcoa; (5) the new power supply agreements with TVA are an improper mechanism for the allocation of power costs among the system's members or users; (6) the roll-in rate making technique remains appropriate in the case of Nantahala and Tapoco; and (7)

the Full Commission has underestimated its regulatory authority over Alcoa with respect to Nantahala's rates and service.

All of the intervenors filed timely exceptions and appealed from the final order of the Commission granting Nantahala a partial rate increase based upon a stand-alone rate making technique. Jackson Paper's exceptions and appeal concern the Commission's failure to approve the Large Industrial Service rate schedule proposed by that company, while the other intervenors' exceptions and appeal primarily concern the question of "roll-in" and Alcoa's continued liability for the financial integrity and obligations of its subsidiary Nantahala.

Lacy H. Thornburg, Attorney General, by Richard L. Griffin, Assistant Attorney General, for Using and Consuming Public.

Robert Gruber, Executive Director, by James D. Little, Staff Attorney, The Public Staff, for the Using and Consuming Public.

Crisp, Davis, Schwentker & Page, by Robert F. Page, for intervenor-appellants Counties of Cherokee, Graham, Jackson, Macon, and Swain; Towns of Andrews, Bryson City, Dillsboro, Robbinsville, and Sylva; Tribal Council of the Eastern Band of Cherokee Indians; and Henry J. Truett, Howard Patton, Veronica Nichols, O. W. Hooper, Jr., and Alvin E. Smith.

Hatch, Little, Bunn, Jones, Few and Berry, by David H. Permar, for intervenor-appellant Jackson Paper Manufacturing Company.

Hunton & Williams, by Edward S. Finley, Jr., for respondent-appellee Nantahala Power and Light Company.

LeBoeuf, Lamb, Leiby & MacRae, by Ronald D. Jones, David R. Poe, and Dennis P. Harkawik, of Counsel, for respondent-appellees Aluminum Company of America and Tapoco, Inc.

MEYER, Justice.

[1] The principal question raised by this appeal is whether the Commission erred as a matter of law in its order establishing Nantahala's retail rates on a "stand-alone" basis by failing to accord more than minimal consideration to competent evidence suggesting the continued propriety of utilizing the "roll-in" rate making methodology applied by the Commission in two preceding

general rate cases involving Nantahala, Tapoco, and Alcoa and affirmed by this Court in *Utility Commission v. Nantahala Power and Light Co.*, 314 N.C. ---, --- S.E. 2d --- (No. 227A83; filed 3 July 1985) ("*Nantahala I*"), and *Utilities Commission v. Nantahala Power and Light Co.*, 314 N.C. ---, --- S.E. 2d --- (No. 111A84; filed 3 August 1985) ("*Nantahala II*"). In this appeal, the intervenors contend that the four basic factual determinations which supported the 1981 Docket No. E-13, Sub 29 (Remanded) order implementing roll-in, affirmed in *Nantahala I*, and the 1982 Docket No. E-13, Sub 35, order implementing a roll-in, affirmed in *Nantahala II*, continue to be present and relevant to the fundamental question as to what is the just and reasonable level of rates for Nantahala to charge its retail customers under Chapter 62 of the North Carolina General Statutes.

These four basic factual issues or determinations raised by the intervenors in pre-hearing motion and through the presentation of evidence during the 1983 adjudicatory hearings, as stated in the pre-hearing motion, are as follows:

1. Tapoco, Inc., is a North Carolina electric public utility;

2. Aluminum Company of America (Alcoa) is a North Carolina electric public utility;

3. The properties of Nantahala and Tapoco constitute a unified single electric system;

4. Alcoa so dominates Nantahala as to pierce the veil of corporate separateness between them.

The intervenors challenge the Commission's order granting Nantahala a partial rate increase on a number of grounds. The intervenors contend, *inter alia*, that the Commission's findings and conclusions prejudice their substantial rights by: (1) the Commission's failure to accord more than minimal consideration to the evidence respecting the four issues raised by both pre-hearing motion and testimony at the rate hearings as shown by the lack of findings of fact on these issues; (2) the Commission's erroneous decision to treat Nantahala as a stand-alone company for rate making purposes; and (3) the Commission's error in determining that it could not set Nantahala's rates on a rolled-in basis absent a voluntary commitment on the part of Alcoa to support Nantahala financially should any revenue short-fall occur under a roll-

in. For the reasons set forth below, we reverse the final order of the Commission in Docket No. E-13, Sub 44, and remand the matter to the Commission for further proceedings in light of our recent decisions in *Nantahala I* and *Nantahala II*, and consistent with the opinion rendered herein.

We will review, in the following order: (1) the prior regulatory and judicial decisions involving the propriety of a roll-in rate making methodology for setting Nantahala's retail rates; (2) the evidence presented in the Sub 44 hearing with respect to the issues raised by Nantahala's rate increase request; (3) the Commission's consideration, or failure of consideration, of the four issues raised by the intervenors by pre-hearing motion and evidence presented at the hearings; (4) the Commission's decision to set Nantahala's rates on a stand-alone basis; (5) the Commission's determination that it lacked authority to require Alcoa to support Nantahala financially under a roll-in order; and (6) the Commission's failure to approve the "LIS" rate requested by Jackson Paper Manufacturing Company.

I.

This appeal is the fourth in a sequence that originated in 1976 with the filing of a rate increase application by Nantahala in Docket No. E-13, Sub 29.[2] In that general rate case, a number of the present intervening parties and rate payers brought to the attention of the Commission four issues which they argued would support the implementation of a roll-in of the properties and financial data of Nantahala and Tapoco for rate making purposes. Those issues concerned the public utility status of Alcoa and Tapoco under North Carolina law, the existence of a single, unified Nantahala-Tapoco hydroelectric utility system in western North Carolina, and the domination and manipulation of that single utility system by the common corporate parent, Alcoa, for its benefit to the significant detriment of the using and consuming public. In its 14 June 1977 order approving Nantahala's rate increase request, the Commission failed to consider these issues and established Nantahala's intrastate retail rates on a stand-alone basis, pursuant to and in recognition of costs incurred by

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2. Where necessary to supplement this review we have taken judicial notice of our records in *Nantahala I* and *Nantahala II*. *See Bizzell v. Ins. Co.*, 248 N.C. 294, 103 S.E. 2d 348 (1958).

Nantahala under the terms of power supply agreements then in effect between and among Nantahala, Tapoco, Alcoa, and TVA. The two principal power supply agreements at issue were the 1962 New Fontana Agreement between Alcoa, Nantahala, Tapoco, and TVA and the 1971 Apportionment Agreement between Nantahala and Tapoco.

In *Utilities Commission v. Edmisten*, 299 N.C. 432, 263 S.E. 2d 583 (1980) ("*Edmisten*"), we reviewed the Sub 29 order and determined that the Commission's summary disposition of the intervenors' contentions regarding roll-in indicated that the Commission had accorded only minimal consideration to competent evidence, and further held that such a treatment constitutes error of law correctable on appeal. *Id.* at 437, 263 S.E. 2d at 588; N.C.G.S. § 62-94(b)(4). *See also Utilities Commission v. Gas Co.*, 254 N.C. 536, 119 S.E. 2d 469 (1961). Specifically, the order was reversed on the grounds that it was not sufficient for the Commission to consider only the specific indicia of a utility's economic status set out in N.C.G.S. § 62-133(b), but that the Commission must also consider "all other material facts of record which may have a significant bearing on the determination of reasonable and just rates" under N.C.G.S. § 62-133(d). 299 N.C. at 437, 263 S.E. 2d at 588. Accordingly, the matter was remanded with instructions to consider the evidence suggesting the propriety of the roll-in device; to obtain and consider information and data showing what Nantahala's cost of service to its customers would be if the roll-in rate making methodology were used; and to determine whether Nantahala's customers would benefit thereby.

Upon remand, the Commission focused on the four basic issues outlined above and (1) determined that Alcoa is a North Carolina public utility pursuant to N.C.G.S. § 62-3(23)c; (2) determined that Tapoco is a North Carolina public utility pursuant to N.C.G.S. §§ 62-3(23)a and (23)b and by virtue of its 1955 certificate of public convenience and necessity; (3) found that the Nantahala-Tapoco electric generation and distribution system constitutes a single, integrated electric system, designed, developed, and operated as such and coordinated as a single entity with the TVA system; (4) found that the use of an appropriately performed roll-in of Nantahala and Tapoco would be beneficial to Nantahala's customers because its allocated cost of power under the combined system is less than the cost of power for Nantahala treated as a

stand-alone system, such that roll-in will result in a significant reduction in the cost of providing public utility service to the single system's retail customers; (5) determined that significant detriments and inequities to Nantahala arise out of both the NFA and the 1971 Apportionment Agreement and that concealed benefits flowing to Alcoa through its subsidiary Tapoco render use of those contracts inappropriate for determining the costs fairly attributable to the combined system's North Carolina public load; (6) determined that the rolled-in cost allocation methods and procedures proposed by the intervenors, based upon the generational capabilities and needs of Nantahala, are proper for use in the allocation of demand and energy related costs and should be adopted for use in setting Nantahala's retail rates in the Sub 29 (Remanded) proceeding; and (7) found that Alcoa had so dominated Nantahala in certain contracts and transactions involving Nantahala, Tapoco, and others that Nantahala had been left, as of 1981, "but an empty shell, unable to act in its own self-interest, let alone in the interest of its public utility customers in North Carolina," so as to render Alcoa responsible for such portions of any refund obligation placed upon Nantahala as Nantahala itself is unable to make to its customers.

The roll-in methodology proposed by the intervenors in the Sub 29 (Remanded) proceedings was then adopted and implemented by the Commission, resulting in the lowering of Nantahala's retail rates and the imposition of a refund obligation upon Nantahala and Alcoa. As we noted in *Nantahala I*, slip op. at 13-14, --- S.E. 2d at -------, the roll-in method treats Nantahala and Tapoco as a single, integrated system for accounting purposes. That is, (a) the assets, properties, plants, and working capital requirements of the two companies are joined in one unified rate base; (b) the joint revenues and expenses of the single system are totalled; and (c) the combined system is assigned a rate of return. From these three elements, the combined system revenue requirement (expenses + rate base × rate of return) is derived. Next, the combined system cost of service is allocated between the public load customers in North Carolina and the industrial load customer (Alcoa) in Tennessee, using generally accepted jurisdictional allocation factors for setting the retail rates of public utilities operating in more than one state. Nantahala's retail rates under such a rate making methodology are lower than

they would be under a stand-alone computation because the cost of service per kilowatt hour for the unified Nantahala-Tapoco system is lower than for Nantahala treated as a stand-alone electric system.

In *Nantahala I*, we noted that "[t]he propriety of the separation or rolling-in of properties of affiliated corporations for rate making purposes, being merely a step in the determination of costs properly allocable to the various classes of service rendered by a utility, is widely recognized as dependent upon the particular characteristics of the system or systems in question, and upon the facts and circumstances of each case." Slip op. at 38-39, --- S.E. 2d -------. In addition, we observed that "the question of whether to treat various entities as an integrated system for rate making purposes is not a purely factual question, but also rests on criteria which each rate making authority may deem relevant." *Id.* at 39, --- S.E. 2d at ---, *quoting Nantahala Power and Light Co.*, Opinion No. 139-A, 20 F.E.R.C. ¶ 61,430, p. 61,869 (1982). After undertaking an exhaustive review of the design, development, and operation of the various corporate entities which have from time to time comprised the comprehensive Alcoa power system in western North Carolina during the twentieth century, we categorically affirmed the Commission's factual determinations regarding the public utility status of Alcoa and Tapoco, the existence of a single, unified Nantahala-Tapoco electric utility system, the historical domination of that single system by the common corporate parent Alcoa, and the Commission's decision to utilize the roll-in rate making methodology proposed by the intervenors. Slip op. at 38-94, --- S.E. 2d at -------. Specifically, we held:

> In summary, the evidence of record gathered at the remanded hearings before the Commission in this general rate case establishes beyond question three basic propositions: (1) Tapoco is a North Carolina public utility; (2) the hydroelectric facilities of Nantahala and Tapoco constitute a unified, single system, operating under conditions rendering a roll-in rate making methodology appropriate; and (3) Alcoa is a statutory North Carolina public utility to the extent that its affiliation with Nantahala has affected Nantahala's rates.

Slip op. at 70, --- S.E. 2d at ---.

Later, in addressing the respondent companies' arguments against the roll-in order arising under federal law, we described the legal and factual bases of the Sub 29 (Remanded) order:

> In this case, the Commission, in carrying out its duty to determine what are reasonable and just rates for Nantahala's intrastate retail customers to pay for electric service, made a searching examination of "all material facts of record," as it is required to do by N.C.G.S. § 62-133(d), including but not limited to, the effect of the FERC-filed power supply contracts on Nantahala's costs of service. It also considered the entire historical development of the Nantahala-Tapoco electric system and the intercorporate allocation of the costs and benefits associated therewith.
>
> The Commission's extensive and detailed findings of fact taken as a whole effectively demonstrate that certain portions of the operating expenses Nantahala incurs under the NFA and 1971 Apportionment Agreement were not incurred for the benefit of Nantahala's retail rate payers, were not required for their service and were not offset by compensating economies or benefits in other areas of the utility's operations. In addition, the Commission determined that Nantahala's parent Alcoa, which is also the single largest customer of the combined system, had so dominated Nantahala that the utility was unable to act either in its own self-interest or in the interests of its public customers and that through its domination, Alcoa had received substantial concealed benefits, by means of the contractual and intercorporate structure of the "Alcoa power system," to the corresponding detriment of Nantahala's ability to render service at reasonable and just rates to its public customers.
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> . . . .
>
> . . . In effect, the Commission has recognized that two affiliated North Carolina public utilities, Nantahala and Tapoco, both of whom are controlled by their parent-customer Alcoa, itself a North Carolina statutory public utility, were in substance providing a joint service to retail customers in North Carolina, as well as to Alcoa, although the public service in North Carolina was labeled as service from Nantahala alone. By means of the roll-in, the Commission set

the "Nantahala" retail rates by combining the financial data of the two affiliates into a unified rate base, and determined on a conventional load responsibility basis what portion of the rolled-in system's costs should be borne by the non-Alcoa customers, to produce the same billing rates as would result from an explicitly joint service at lawful, nondiscriminatory rates. Thus, it disregarded only the fiction of Tapoco as a separate utility system serving only Alcoa, in order to ensure that the joint Nantahala-Tapoco service to North Carolina retail customers was provided at just and reasonable rates. Insofar as the Commission determined that Alcoa as corporate parent and private industrial customer had benefited at the expense of the public load from the corporate and power supply arrangements it imposed upon its subsidiaries, it was well within its regulatory authority to decide that the costs associated with those benefits would not be borne by the public consumers in the form of higher retail rates, but would be borne by the company's customer and sole shareholder, Alcoa.

In practice, the Commission's roll-in methodology accepted Nantahala's and Tapoco's entitlements under the NFA and 1971 Apportionment Agreement, and Nantahala's supplementary purchases from TVA, as elements of the combined Nantahala-Tapoco cost of service. The Commission then determined that it was inappropriate to allow Nantahala to collect all of its revenue requirements from its public customers on the theory that it was a stand-alone company, because Nantahala's "stand-alone" costs under the corporate and contractual arrangements were not incurred for their benefit, but as a result of Alcoa's corporate dominance for Alcoa's benefit.

Slip op. at 119-122, --- S.E. 2d at ---.

As to the evidence supporting the imposition of financial responsibility upon Alcoa for Nantahala's refund obligation, we stated:

The entire historical pattern of Nantahala's development is replete with instances of the manner in which Alcoa dominated the development, sale and operation of Nantahala's hydroelectric resources and facilities, and subordi-

> nated these resources to what Alcoa considered to be the paramount needs of its aluminum smelting and fabrication operations in Alcoa, Tennessee. For example, Nantahala added generating capacity, vastly in excess of the amounts required to service its public load, for the express purpose of meeting Alcoa's expanding production needs prior to and during the war years at mid-century. Yet, in the last thirty years, Alcoa has caused Nantahala to remain inert in terms of obtaining additional capacity, either through development of additional generating facilities or through long-term purchase power agreements with others tailored to Nantahala's particular needs, as Alcoa's electricity requirements have leveled off, despite substantial constant growth in Nantahala's public load. As we observed earlier, Alcoa's unified development of the hydroelectric resources of its public utility subsidiaries was undertaken in the paramount interest of obtaining low-cost hydroelectric power for itself.

Slip op. at 161-62, --- S.E. 2d at ---.

On 31 December 1980, during the pendency of the Sub 29 (Remanded) proceeding, but prior to the hearings and determination of the matter by the Commission, Nantahala filed an application in Docket No. E-13, Sub 35, seeking to increase its rates and charges for retail electric service in North Carolina effective 1 February 1981. As it had in the preceding Sub 29 application, Nantahala again failed to include data concerning its costs of service under a roll-in methodology in the Sub 35 application. The proposed increase in rates and charges was designed to produce approximately $2,147,853 of additional revenues for Nantahala's North Carolina retail operations based upon the level of operations in the test year 1979.

On 16 January 1981, the Public Staff and the Attorney General moved to dismiss the application, or, in the alternative, to defer hearing the case and to join Alcoa and Tapoco as parties to the proceeding. The intervenors argued that Nantahala's application was deficient for failure to include roll-in data, which, in the view of the moving parties, was required by our decision in *Edmisten*. The Commission, on 13 March 1981, issued an order denying the motions to dismiss or join additional parties, but requiring Nantahala to submit data and testimony in the Sub 35 docket on

the issue of utilizing a rolled-in cost of service treating Nantahala and Tapoco as a single system for rate making purposes. In that order, the Commission reasoned that a roll-in determination was required in Docket No. E-13, Sub 35, "independently and irrespective" of whether such a determination was as required in Docket No. E-13, Sub 29. The Commission observed that two different test years were at issue in the Sub 29 and Sub 35 dockets, and that the earlier case had involved a rate base determined on fair value, whereas the Sub 35 case involved a rate base to be determined on original cost, and concluded that "the factual and legal framework of the two cases is such that a roll-in determination in the remanded case is not necessarily dispositive of whether a roll-in determination is required in the current case." Accordingly, the Commission treated the roll-in determination as a question of fact to be determined anew in the Sub 35 docket and ordered the appropriate data to be submitted. Alcoa and Tapoco were eventually ordered joined as parties to the proceeding, and on 8 June 1982 the Commission issued an order implementing a roll-in rate making methodology for Nantahala and Tapoco for the second time in a nine-month period.

All of the relevant power supply contracts and operating conditions at issue in the Sub 29 (Remanded) case, as well as all pertinent intercorporate structures between Nantahala, Tapoco, and Alcoa, had remained unchanged during the pendency of the Sub 35 proceedings. Accordingly, the Commission made essentially identical findings of fact with respect to the key factual issues undergirding the roll-in rate making methodology and Alcoa's liability for Nantahala's financial integrity. On the latter issue, however, the Commission's Sub 35 order contains a discussion of the new or additional evidence presented during the September 1981 and February and March 1982 hearings, which has some relevance to the arguments presented by the intervenors in the Sub 44 proceeding as to Alcoa's continued domination of Nantahala. These portions are as follows:

> *Alcoa's dominance over Nantahala is obviously and frequently documented in the results of various arrangements it has caused Nantahala and Tapoco to enter into. Such dominance has caused detriment to Nantahala and has resulted in the passing of concealed benefits to Alcoa. Other indications of dominance of Nantahala by Alcoa are* that its facilities are

integrated and interconnected into Tapoco's so as to form a single system; the majority of Nantahala's Directors are employees of Alcoa; and Alcoa Vice President has the proxy for selecting the board membership; under the President's new employment contract he receives incentive awards at the instance of a committee of directors, which committee would include only Alcoa employees since the other directors are subordinate to the president and would be excluded; *the decision to negotiate alone with TVA for a new agreement to replace the expiring New Fontana Agreement was forced upon Nantahala by the Alcoa-Tapoco decision to exclude Nantahala's interest from its negotiations with TVA*; and Alcoa controls accounting policies.

Alcoa's dominance over Tapoco is more blatant than its dominance over Nantahala. Tapoco's headquarters are at Alcoa, Tennessee; its president is a salaried employee of Alcoa serving Alcoa as its Alcoa, Tennessee, power supply manager; its vice presidents are Alcoa employees; it serves only its owner; it sells all of its NFA entitlements to Alcoa for a nominal 4½% profit; each corporate director is an Alcoa employee; Alcoa provides all Tapoco financing; and Alcoa controls the ultimate operation and accounting policies even to the extent of physically keeping Tapoco's financial records and books at Alcoa's Pittsburgh headquarters. (Emphasis added.)

Once again, on the basis of Alcoa's domination over its wholly owned public utility subsidiaries, Nantahala and Tapoco, the Commission imposed a refund obligation on Alcoa for any refunds which Nantahala was unable to make to its customers as a result of the Commission's order. The order of the Commission in Docket No. E-13, Sub 35, was affirmed by this Court in all material respects in *Utilities Commission v. Nantahala Power and Light Co.*, --- N.C. ---, --- S.E. 2d ---.

II.

As indicated by the Commission in the above-quoted portion of its order, negotiations to replace the NFA and 1971 Apportionment Agreement, both to expire by their respective terms on 31 December 1982, were underway at the time the Sub 35 rate increase request was pending before the Commission. Upon execu-

tion of the 1983 Fontana III Agreements between TVA and Nantahala, on the one hand, and TVA and Tapoco, on the other, Nantahala instituted its third rate increase request since 1976 in this, the Sub 44 proceeding.

Nantahala's application in Docket No. E-13, Sub 44, lacked roll-in data as had its two preceding applications. Eventually, the Commission ordered that such data be submitted and that Alcoa and Tapoco be joined as parties to the proceedings, denied the intervenors' pre-hearing motions designed to obviate the need to relitigate the four roll-in related issues adverted to earlier, and proceeded to hear witness testimony and received exhibits from all parties. Although the NFA and 1971 Apportionment Agreements were still in effect during the test year 1981, the focus of the Sub 44 hearings was on the effect of the 1983 Nantahala-TVA Interconnection Agreement ("1983 Interconnection Agreement") upon Nantahala's prospective costs of service pursuant to N.C.G.S. § 62-133(c).

At the hearings, the intervenors urged the Commission to continue to establish Nantahala's rates through application of the roll-in rate making technique in the Sub 44 proceeding. The intervenors maintained that the new contractual arrangements between Nantahala and TVA, and between Tapoco and TVA, merely constitute a continuation of the same pattern that existed in the past. Nantahala and Alcoa, on the other hand, argued that the basis for the roll-in applied in Docket Nos. E-13, Sub 29 (Remanded) and Sub 35, no longer exists, and that under the 1983 Interconnection Agreement, the inequities of the NFA and 1971 Apportionment Agreement have disappeared.

In fact, the principal, if not the only, evidence of "changed circumstances" with regard to Nantahala, Tapoco, and Alcoa presented by the companies was the new power supply contract between Nantahala and TVA, certain testimony and exhibits from the parties negotiating that agreement, and the new Tapoco-TVA agreement. The evidence, taken as a whole, tends to show that the coordination and exchange arrangements between the Alcoa system and TVA, which were the subject of extensive discussion by both the Commission and this Court in *Nantahala I*, are essentially intended to continue, with some modifications, under the new agreement which took effect 1 January 1983 between TVA,

on the one hand, and Tapoco on behalf of the Alcoa system, on the other. This contract, the 1983 Tapoco-TVA Exchange Agreement ("1983 Exchange Agreement") is significant in this case by virtue of the fact that Nantahala's generating plants, which had been subject to the OFA and NFA, are excluded from its coordination and exchange arrangements. For the first time in over forty years, Nantahala is permitted to use its plants exclusively to serve its public load. The only Alcoa system plants subject to TVA control are Tapoco's four generating plants, including its North Carolina facilities at Santeetlah and Cheoah.

However, the 1983 Exchange Agreement is very similar to the preceding Fontana agreements between TVA and the Alcoa system in that Tapoco and TVA continue to exchange power with one another. Under its terms, the hydroelectric generation resources of Tapoco are turned over to TVA to be operated in the TVA system against the total TVA system load. In return, TVA delivers to Tapoco 185 MW of continuous (100%) load factor power, which Tapoco turns over directly to Alcoa. The amount of power returned is to match the output from Tapoco's plants over the total lifetime of the contract, which is expected to run for at least twenty years. In that respect, Tapoco's power supply contract is somewhat similar to the former arrangement under the OFA where return power entitlements were set on the basis of system output, rather than fixed in advance as they were under the NFA. Under the 1983 Exchange Agreement, TVA is to make available to the Alcoa system a fixed amount of power regardless of streamflow for the first ten years, with that amount adjusted or "trued-up" over the remaining ten years in accordance with the actual output from the Tapoco plants. This feature protects the Alcoa system against wide swings in the availability of power depending upon water conditions. The agreement does not, however, reflect any direct credit for the Tapoco peaking capacity turned over to TVA in the arrangement because TVA expects to be "long on capacity" during the first ten years of the contract and was therefore unwilling to put any compensable value on the peaking capacity which it received.

Like Tapoco, Nantahala approached TVA seeking a twenty-year exchange type agreement wherein Nantahala would obtain a levelized return of power protecting it against fluctuations due to water conditions. What Nantahala ultimately obtained, however,

is a ten-year "interconnection" agreement by which Nantahala purchases supplemental power from TVA at such times as its customer demand outstrips its generational capacity. In essence, this is a continuation of an arrangement begun in 1971 when Nantahala's return entitlements under the NFA and 1971 Apportionment Agreement combined to artificially limit Nantahala's available power supply. At that time, Nantahala was constrained to enter into a supplemental purchase power agreement with TVA to meet its needs. The 1983 Interconnection Agreement, effective 1 January 1983, contemplates that Nantahala will dispatch its own generating plants, selling surplus power to TVA at such times as its production exceeds its customer demand, and purchasing supplemental power from TVA to meet generational deficits. The 1983 contract does give Nantahala almost full credit for its peaking capacity, and nearly full credit for its actual generation.

Under the pricing structure of the 1983 Interconnection Agreement, Nantahala is to pay TVA a two-part rate to cover TVA's demand and energy costs. The capacity portion of the rate is priced at TVA's average system capacity cost with hydro removed. That is, Nantahala is charged on the basis of average TVA costs for all generation, including the higher cost base load coal and nuclear capacity, with the exclusion of the lower cost hydro generation. The second part of the rate, the energy portion, is priced on the basis of TVA's incremental costs, plus an additional amount (an "adder") which TVA deems necessary to assess. The incremental costs represent the next and more expensive generating unit(s) to be utilized to produce the necessary energy on an hourly basis, and it is not the rate at which TVA's other preference or highest priority customers (like Nantahala) are billed. These customers generally pay a lower average cost, which was also the basis upon which Nantahala's purchases were priced under the 1971 Nantahala-TVA purchase power agreement. As a result of this two-part rate structure, Nantahala will be purchasing energy that includes only the highest cost energy on the TVA system at any point in time, and very little of the base load coal fired and nuclear energy will flow to Nantahala. The intervenors' witness David A. Springs testified that this pricing concept is not cost-related and will be very disadvantageous to Nantahala in the

future as its public load continues to grow and this incrementally priced energy becomes more costly to produce, as is anticipated.

The greatest change under the Fontana III Agreements is that Nantahala, by no longer enjoying the exchange concept, will suffer severe fluctuations in costs depending on streamflow conditions. This is so because Nantahala's hydro resources are no longer turned over to TVA to be operated by TVA against the TVA load in return for the delivery of fixed entitlements based on average annual generation. In relatively dry years when streamflow is low, Nantahala will have to purchase more replacement energy from the TVA system. During such years, TVA's cost of power will be greater as well, inasmuch as both systems are in essentially the same geographical area and both serve similar loads. This situation is aggravated by the fact that the energy purchased from TVA is priced at the higher energy cost on the TVA system at that particular point in time. In dry years, when Nantahala's purchases are high, TVA's incremental cost will be higher than average or wet years simply because the TVA system will be operating more costly generation for more hours during the year to replace both its and Nantahala's unavailable hydro power. Of course, in wet years, Nantahala's purchases will be considerably less.

Two other apparent disadvantages of the 1983 Interconnection Agreement are that the contract is only for a ten-year period (extendable on a year-to-year basis), subject to cancellation on five years' notice, and that under the earlier Fontana agreements, Nantahala was entitled to receive power or compensation for the value which it provided as part of the interconnected TVA-Alcoa power system. The new agreements provide no such benefit even though Nantahala, by virtue of operational coincidence, remains essentially interconnected with TVA, since its upstream water storage and release tends to coincide with that of TVA. In summary, there is a possibility that the 1983 Interconnection Agreement will remain in effect for a relatively short period of time, leaving Nantahala and its customers vulnerable to uncertainties in supply and price in the relatively near future, and therefore more vulnerable to rate increases.

The 1983 Exchange Agreement and the 1983 Interconnection Agreement, unlike their predecessors, were negotiated separately

between each of the Alcoa system generating companies and TVA. Although Alcoa had negotiated the Original and New Fontana Agreements, which controlled Tapoco's and Nantahala's electrical production rights as a single unit for forty years, Alcoa declined to negotiate for or with Nantahala for a replacement agreement. Instead, as the Commission itself found in its Sub 35 order, Alcoa decided that Nantahala should negotiate independently of Tapoco, as if it were a stand-alone utility. On 6 June 1977, S. Alfred Jones, an Alcoa official, sent a letter to TVA official Albert O. Daniels in confirmation of an earlier (2 June 1977) discussion in Chattanooga, Tennessee, concerning renegotiation of the New Fontana Agreement and the Alcoa-TVA Purchase Power Agreement. The letter states, in pertinent part, as follows:

> Our preliminary position in this matter was expressed as follows:
>
> *New Fontana Agreement (TV-23701A)*
>
> The parties to this Agreement are TVA, Tapoco, Inc., and Nantahala Power and Light Company. *It is our position that this contract be renegotiated to result in two distinct contracts; one between TVA and Nantahala, and another between TVA and Tapoco.*
>
> [Alcoa's position as to the specific terms of the Tapoco-TVA contract are outlined to include, *inter alia*, a contract term to parallel the remaining Federal Power Commission ("FPC") License period (2005); removal of TVA interruption rights, and establishment of a firm amount of power to Tapoco based, *inter alia*, upon historical generation from Tapoco developments.]
>
> *With regard to Nantahala, negotiations will be handled by that entity and should consider its resources separate from Tapoco.* We promise to promote an early meeting between Bill Jontz, President of Nantahala, and TVA to review Nantahala's position and matters of future mutual interest. (Emphasis added.)

Thus, when Nantahala first approached TVA about power supply negotiations in 1979, Nantahala officers had no apparent alternative but to proceed with separate negotiations with TVA. As late as 1981, TVA expressed a desire to Tapoco to continue

the same parties to the new agreement. Eventually, TVA agreed to separate negotiations sometime in 1981 after determining that there were no "disbenefits" or disadvantages to TVA under such an arrangement.

Looked at from the point of view of Nantahala, however, the evidence does not appear to support a conclusion that there were no disadvantages to separate negotiations. In fact, there had to be a considerable loss of negotiating strength for Nantahala by division of the total Alcoa forces in bargaining with TVA. The Tapoco-TVA Agreement is considerably better for Alcoa and Tapoco than the NFA. The record reveals that Tapoco achieved most of its negotiating goals, with the exception of receiving full credit for the dependable capacity given to TVA over and above Tapoco's 185 megawatt return entitlement. On the other hand, Nantahala's negotiating team could have used both the clout and leverage of Alcoa and Tapoco's resources to improve its bargaining position. For example, at one negotiating table Tapoco (Alcoa) was attempting to get credit for excess dependable capacity, while at another negotiating table Nantahala was negotiating for the purchase of deficit capacity. At one negotiating table, Tapoco (Alcoa) was tying down arrangements which resulted in levelized annual entitlements, while at another negotiating table Nantahala was being excised from the integrated operation and energy exchange concept. In addition, Alcoa, at one negotiating table, was purchasing its deficit power from TVA at standard rates based on average system costs, while at another table Nantahala had to accept incremental energy purchases from TVA at a far higher rate.

In addition to the evidence presented by the intervenors and the companies regarding the negotiations and operational terms of the Fontana III Agreements, the intervenors also presented voluminous evidence on the issues for which they had previously sought application of the doctrine of res judicata or judicial notice. Insofar as the intervenors' evidence concerns the historical development, design, operation, and location of the Nantahala and Tapoco hydroelectric system, the public utility status of Alcoa and Tapoco and Alcoa's domination of these subsidiary utility companies, the evidence of record in the Sub 44 proceeding is virtually identical to the evidence presented in the Sub 29 (Remanded) and Sub 35 proceedings, discussed at length in *Nantahala I.*

As to the factual circumstances concerning Tapoco's status as a North Carolina public utility, absolutely no change in condition has been shown to have occurred since entry of the Commission's prior orders. Similarly, the evidence again demonstrated the existence of a single electric system composed of the dams, transmission, and distribution lines of Nantahala and Tapoco by location, design, and history and owned by a single corporation parent, Alcoa. The only circumstance which has changed under the Fontana III Agreements is the fact that the hydro resources of the single system are no longer coordinated as a single unit by TVA by virtue of the contractual agreement with the Alcoa system as they were under the OFA and NFA. Under Fontana III, only the four hydroelectric plants of Tapoco are dispatched by TVA against the TVA load in exchange for return power entitlements. As a result of Nantahala's exclusion from the terms of the 1983 Tapoco-TVA Exchange Agreement, Nantahala dispatches its own generation, and has accordingly been required to install $100,000 worth of equipment for dispatching purposes.

In all other material respects, the evidence introduced by the intervenors indicates that very little has changed in the conditions under which Nantahala and Tapoco operate. There has been no change in Nantahala's production capability or in its physical interconnection with Tapoco. Nantahala continues to serve the same assigned area, including the portion of North Carolina in which Tapoco Village, Santeetlah, and Cheoah are located; and Tapoco continues to own the Santeetlah and Cheoah power facilities. Obviously, no change has occurred in the history of the system's design and, in essence, Nantahala remains by its historical development a component part of a unified system, since it was not designed to operate as a stand-alone utility. The legacy of this development in terms of power supply is the undeniable fact that Nantahala's generation is still not adequate to serve its public load, and Nantahala is still constrained to purchase its supplemental power and energy from TVA. Under the terms of its new agreement, Tapoco exchanges power with TVA much the same as it did under the 1962 New Fontana Agreement, and Nantahala, under its 1983 Interconnection Agreement, continues to sell power to TVA when it has excess generation to dispose of.

In other words, the only change that has occurred with respect to the "single system" since the two prior rate orders

were entered by the Commission, and affirmed on appeal, is the single fact that new power supply contracts with TVA were entered into and, as an incident to the change, Nantahala dispatches its own generation. The evidence also indicates that under the new arrangements, Nantahala is dispatching its plants in much the same way as TVA had under the NFA.

The remaining factual issues which the intervenors contend were also raised and conclusively demonstrated by their evidence concern Alcoa's status as a statutory North Carolina public utility and Alcoa's domination of Nantahala to the detriment of the interests of Nantahala's public customers. Once again, the intervenors presented virtually identical evidence in support of both propositions as had been presented in the two preceding rate cases, where the Commission had conclusively found that "Alcoa has so dominated certain transactions and agreements affecting its wholly owned subsidiary Nantahala that Nantahala has been left but an empty shell, unable to act in its own self interest, let alone in the interest of its public utility customers in North Carolina." This finding of fact, initially made in the Sub 29 (Remanded) order in September 1981, was repeated by the Commission verbatim in its June 1982 Sub 35 order, and affirmed on appeal in *Nantahala I* and *Nantahala II*.

Once again, the only relevant factual change in circumstance since entry of these orders has been the execution of the Fontana III Agreements. In all other respects, the evidence presented demonstrated no structural change in the relationship between Alcoa and its wholly owned subsidiary. In addition, the evidence indicates that although Nantahala is facing a period of financial need as it attempts to repair and expand its facilities by seeking an $8 million loan from outside sources, Alcoa will not provide a "comfort letter" for its subsidiary and has actually lessened its investment in Nantahala from its pre-1976 level. In that year, Alcoa converted half of its $19 million equity investment in Nantahala into $8.9 million of debt, which debt has now been reduced to $3.3 million. That is, Alcoa has withdrawn, in cash, approximately $5.5 million of its former equity investment in Nantahala during a period of financial need for the payment of Nantahala's refund obligations and other capital expenditures.

More to the point, however, is the significance of the new or additional evidence as to Alcoa's role in the Fontana III negotiations on the questions of corporate dominance and whether Alcoa's affiliation continues to have an effect on Nantahala's rates or service so that Alcoa remains a North Carolina public utility under the provisions of N.C.G.S. § 62-3(23)c. Although Nantahala presented evidence at the Sub 44 hearings that it had determined to negotiate the 1983 Interconnection Agreement without direction from Alcoa, the inescapable fact remains, as the Commission itself concluded in the Sub 35 order, that in the year 1977 Alcoa decided, without prior consultation with Nantahala officials, that Nantahala should negotiate a New Fontana Agreement renewal separate from Alcoa and Tapoco; a decision which effectively "forced" Nantahala into separate negotiations. Nantahala's president, William Jontz, was, as noted in *Nantahala I*, slip op. at 69, n. 20, --- S.E. 2d at ---, then under contractual agreement with Alcoa to manage Nantahala so as to have "little or no adverse impact on the operations and assets" of Alcoa and its other subsidiaries. Jontz subsequently denied that he was even aware of the Alcoa decision to have separate negotiations and contracts.

Moreover, Nantahala was never shown to have approached Alcoa regarding joint negotiations and no studies were conducted by any of the parties to determine whether separate negotiations would be beneficial to Nantahala. As a result of the separate negotiations, Tapoco was able to enter into a contract with TVA similar to and more beneficial than the NFA. On the other hand, Nantahala was unable to enter into the kind of exchange agreement that it sought originally and that TVA originally had considered offering to Nantahala.

Although Nantahala was undeniably freed from some of the grosser inequities of the combined effect of the NFA and the 1971 Apportionment Agreement by its 1983 Interconnection Agreement with TVA, Nantahala was once again effectively put at a disadvantage by having its resources separated from those of the comprehensive Alcoa power system it had been a part of for over forty years. *See Nantahala I*, slip op. at 74, --- S.E. 2d at ---. Nantahala's vice president, N. Edward Tucker, conceded that Nantahala failed to obtain virtually any of its major goals in these negotiations—for example, an exchange contract, a twenty-year term, hydro credit, or average energy cost—which would have

been beneficial in view of its customer load and demand. Although Alcoa did not directly participate in the Nantahala-TVA negotiations as it had in the past, the weakened bargaining position in which Alcoa left Nantahala, after having been somewhat less than a fully independent public utility for most, if not all, of its corporate existence, may be viewed to have led directly to the results which followed.

Clearly, the issue raised by this evidence is not the objective fairness of each separate aspect of the 1983 Interconnection Agreement viewed in a historical vacuum, but rather the fairness of Alcoa's de facto contractual allocation of the power supply resources of western North Carolina between the public load served by Nantahala and the private industrial load served by Tapoco. Unfortunately, it is evident that the Commission has failed, in its order, to give this, and the other related issues raised by the intervenors' evidence, appropriate consideration *before* undertaking to answer the question, in its discretionary authority, of whether a roll-in rate methodology remains appropriate for setting Nantahala's retail rates.

III.

The Commission's Sub 44 orders which are under review in this appeal do not, except in the most minimal and indirect manner, deal with any of the four issues raised by the intervenors. Of the twenty-five findings of fact set forth in the panel order as subsequently adopted by the Full Commission, it cannot be said that any of them deal, in any final or adjudicative fashion, with the issues raised as to the public utility status of Alcoa and Tapoco, the existence of a single, unified electric system comprised of the properties of Nantahala and Tapoco, and the domination of that single system by its common parent Alcoa from the date of its inception until, at the very least, the date of the Commission's last preceding general rate order in the Sub 35 proceeding, 8 June 1982. Moreover, no finding of fact or discussion of the evidence addresses the far larger and more important question of Alcoa's role in the ultimate division and allocation of the power supply resources of the single Nantahala-Tapoco electric system. This issue is of central importance because the using and consuming public of North Carolina has been previously determined to have rights in this single system, given the way in

which its various resources were developed to carry both a public service obligation and a private customer responsibility.

Of the twenty-five findings of fact contained in the order appealed from, only Findings of Fact Nos. 6, 7, 8, 9, and 10 appear to address the roll-in related issues. Of these findings, not one addresses the issues of Tapoco and Alcoa as North Carolina public utilities, or of Alcoa's historic domination of Nantahala. To the extent that the intervenors' fourth issue, concerning the Nantahala-Tapoco single system, is treated at all, it is treated only by negative implication in Finding of Fact No. 9, in which the Commission states:

> *The Nantahala electric system should be treated independently of Tapoco* in this proceeding with respect to all matters affecting the determination of Nantahala's reasonable cost of service applicable to its North Carolina retail operations. *Under the 1983 Interconnection Agreement, Nantahala is a stand alone hydroelectric power company* which operates its 11 hydroelectric generation stations for the sole benefit of its customers, all of which are in North Carolina, without any obligation to or regard for the TVA or Tapoco hydro stations in North Carolina and Tennessee or for Alcoa's power use in Tennessee. (Emphasis added.)

Finding of Fact No. 6 catalogues the benefits of the 1983 Interconnection Agreement with respect to Nantahala's exclusive retention of its own generation; independent control of its generating facilities; control of its water releases; unfettered ability to sell its surplus power to TVA; and assured supply of supplemental and back-up power and energy from TVA, without limitation, at such times as the company's own generation cannot meet its load due to such exigencies as adverse water conditions or equipment outages. At the conclusion of this finding, the Commission states: "Nantahala's North Carolina retail rates should, therefore, be established in this proceeding in recognition of and pursuant to the more favorable terms and benefits of the 1983 Interconnection Agreement."

The issue of Alcoa's domination of Nantahala with respect to the 1983 Interconnection Agreement is never directly addressed in the order, as was the case with the single system issue. Rather,

it is indirectly touched upon in Findings of Fact Nos. 7 and 9. In relevant part, these findings state as follows:

> 7. The New Fontana Agreement and 1971 Apportionment Agreement resulted in substantial concealed benefits accruing to Alcoa to the significant detriment of the customers of Nantahala. No direct benefits now accrue to Alcoa as a result of the 1983 Interconnection Agreement to the detriment of Nantahala's customers. Furthermore, if any indirect benefits enure to Alcoa as a result of said agreement, any such indirect benefits do not appear to be the result of unlawful preference having been shown to Alcoa by Nantahala to the significant detriment of Nantahala's customers.
>
> . . . .
>
> 9. . . . Further, Alcoa receives no power or any other direct benefit from Nantahala's power generation. All of the benefits of the generation from Nantahala's entire hydroelectric system are retained exclusively for the use and benefit of the North Carolina customers of Nantahala, whose entire service is confined to its service area in North Carolina.

From a combination of its findings that under the 1983 Interconnection Agreement Nantahala "is" a stand-alone hydroelectric power company, retaining all of the benefits of its generation and passing no direct benefits to Alcoa, the Commission appears to have made its further finding of fact that "the roll-in methodology advocated herein by the Intervenors and previously utilized by the Commission in prior dockets in making cost of service allocations is not appropriate for use in setting Nantahala's retail rates in this proceeding."

N.C.G.S. § 62-79(a)(1) requires the Commission, in general rate cases, to consider controverted questions by making findings and conclusions and by setting forth the reason or basis therefor "upon all the material issues of fact, law or discretion presented in the record." The Commission must give more than minimal consideration to the evidence supporting an issue necessary to a proper determination of the rights of the parties and failure to do so is reversible error. *Edmisten*, 299 N.C. at 443, 263 S.E. 2d at 588. "'A failure to find facts essential to a determination of the

rights of the parties necessitates a remand to the . . . agency charged with that responsibility.'" *Utilities Comm. v. Farmers Chemical Assoc.*, 33 N.C. App. 433, 446, 235 S.E. 2d 398, 405, *disc. rev. denied*, 293 N.C. 258, 237 S.E. 2d 539 (1977), *quoting Utilities Commission v. Membership Corporation*, 260 N.C. 59, 69, 131 S.E. 2d 865, 871 (1963).

The intervenors contend that had the Commission addressed the issues (and evidence in support thereof) raised by them in a final and adjudicative fashion, it is likely that a different result would have been reached in this case. They contend that the question of whether to set Nantahala's rates on a rolled-in basis cannot be rationally answered without *first* addressing the issue of the single Nantahala-Tapoco public utility system and Alcoa's financial responsibility under Chapter 62 of the North Carolina General Statutes. In essence, the intervenors contend that the latest order of the Commission does not refute the findings, discussion, and conclusions reached by the Commission in the Sub 29 (Remanded) and Sub 35 orders, it merely misses the mark with respect to *all* material facts of record relevant to the question of what are reasonable and just rates for Nantahala *including but not limited to the new power supply agreements* between the member companies of the "Alcoa power system" and TVA. The companies do not challenge the fact that the Commission failed to address the issues raised by the intervenors. Rather, they argue that having decided the "ultimate" issue of roll-in against the intervenors, it became unnecessary for the Commission to answer the four other issues. We do not agree.

The Commission correctly determined in both this and the Sub 35 case that the factual and legal framework in any given general rate case may be such that a roll-in methodology appropriate at one point in time will not necessarily be warranted in a later proceeding. Therefore, the Commission properly deferred its decision as to whether to utilize the roll-in methodology developed in the Sub 29 (Remanded) case until the issue was properly raised through the evidence presented at the hearings on Nantahala's latest rate increase request. However, as between the same parties, on a substantially identical record, and within a one-year time span, the nature of the underlying issues which must necessarily be considered relevant to that question are not likely to vary. Having twice determined that it was necessary to

a proper resolution of the roll-in issue to determine the four other issues raised by the intervenors, it becomes incumbent upon the Commission to also address these issues directly and in a final and adjudicative fashion in the next ensuing general rate case involving the same parties and contentions. We find the Commission's total failure to address the issues raised by the intervenors in such a manner completely inconsistent with its previous determinations and orders in the Sub 29 (Remanded) and Sub 35 cases, as well as inconsistent with its pre-hearing determinations in this docket joining Alcoa and Tapoco as parties and ordering roll-in data to be supplied.

In our discussion of the evidence presented in the Sub 44 proceedings, we have not undertaken to say what weight the Commission is to give to the testimony of the various witnesses and exhibits presented or to the documentary evidence which, if believed by the Commission, would support essential findings that were not made on the four issues raised by the intervenors. The credibility of the evidence and the weight to be given to it are matters for the Commission to determine. *Nantahala I*, slip op. at 182, --- S.E. 2d at ---; *Utilities Comm. v. Telephone Co.*, 285 N.C. 671, 208 S.E. 2d 681 (1974); *Utilities Comm. v. Farmers Chemical Assoc.*, 33 N.C. App. 433, 235 S.E. 2d 398. Because the Commission has failed to find facts essential to a determination of the rights of the parties with respect to the issues of the public utility status of Alcoa and Tapoco, the existence of a single, unified electric system comprised of the properties of Nantahala and Tapoco, and the domination of Nantahala by Alcoa so as to require piercing of the corporate veil between them, this matter must be remanded to the Commission for entry of the necessary findings and conclusions on these issues upon which it may base its order.

The remaining arguments presented by the intervenors regarding the Sub 44 order concern the Commission's decision to set Nantahala's rates on a stand-alone basis and the Commission's apparent determination that a roll-in methodology could not be utilized absent either a voluntary commitment on the part of Alcoa to support Nantahala financially as to future rolled-in rates or an order by FERC directing the physical sale of Tapoco power to Nantahala. We turn next to these questions.

IV.

As we have indicated, the Commission erroneously failed to consider and address all material factual issues necessary to answer the critical question of whether there *is*, in fact, a single Nantahala-Tapoco electric system despite the execution of the Fontana III Agreements and, if so, whether Nantahala's rates and service for its North Carolina rate payers will be improved if rates are set on a single system basis utilizing the roll-in methodology proposed by the intervenors and previously employed by the Commission on two occasions in setting Nantahala's retail rates. Nothing in the Sub 44 order purports to even address this question. The portions of the order which do discuss the roll-in methodology indicate that the Commission began and ended its analysis with its consideration of: (1) "the more favorable terms and benefits of the 1983 Interconnection Agreement" (Finding of Fact No. 6); (2) the fact that "[n]o direct benefits now accrue to Alcoa as a result of the 1983 Interconnection Agreement to the detriment of Nantahala's customers" (Finding of Fact No. 7); (3) the fact that "[u]nder the 1983 Interconnection Agreement, Nantahala is a stand alone hydroelectric power company" (Finding of Fact No. 9); and (4) the consequence that "[a]ll of the benefits of the generation from Nantahala's entire hydroelectric system are retained exclusively for the use and benefit of the North Carolina customers of Nantahala" (Finding of Fact No. 9). In consequence of the foregoing, Finding of Fact No. 9 concludes: "Thus, the roll-in methodology advocated herein by the Intervenors and previously utilized by the Commission in prior dockets in making cost of service allocation is not appropriate for use in setting Nantahala's retail rates in this proceeding."

In its discussion of these findings, the sole reason articulated by the Commission in support of its decision to not utilize the roll-in methodology is as follows:

> *The Commission reaffirms its previous findings and conclusions made in Docket Nos. E-13, Sub 29 (Remanded) and E-13, Sub 35, to the effect that the 1962 New Fontana Agreement and the 1971 Apportionment Agreement resulted in the accrual of substantial concealed benefits to Alcoa to the significant detriment of the customers of Nantahala. However, effective January 1, 1983, Nantahala entered into a*

separate agreement with TVA under which Nantahala retains, dispatches and controls the generation from its own hydroelectric generating plants, and under which Nantahala purchases supplemental and standby power from TVA. Effective January 1, 1983, Tapoco also entered into a separate agreement with TVA under which Tapoco conveys the generating output of its hydroelectric plants to TVA in return for entitlements from TVA which Tapoco uses to provide power to Alcoa in Tennessee. *The execution of these new agreements with TVA substantially removes the underpinnings upon which rested the Commission's previous determinations that the roll-in methodology was appropriate.* (Emphasis added.)

First, in view of the Commission's previous orders, the decision to base Nantahala's rates on its "stand-alone" book costs on such limited findings as those recited above—essentially that Nantahala is "better off" under the new agreement with TVA than under the former agreements with TVA and Tapoco—cannot be considered an exercise of sound and reasoned discretion on the part of the Commission. In addition, the Commission's discussion of the rationale behind the roll-in rate making technique utilized in the Sub 29 (Remanded) and Sub 35 proceedings indicates that in Docket No. E-13, Sub 44, the Commission took an unnecessarily and erroneously narrow and restrictive view of this Court's decision in *Edmisten*, 299 N.C. 432, 263 S.E. 2d 583, and of the scope of its own previous orders.

Although it is true that *one* of the purposes for the roll-in method of rate making is to "cancel" or at least to "true-up" concealed benefits that the Commission found flowing to Alcoa under the power supply agreements then in effect (*see Nantahala I*, slip op. at 92, --- S.E. 2d at ---), the central and overriding purpose of this technique remains its usefulness, for rate making purposes, in preventing Nantahala, as an integral unit in a comprehensive power system owned by a single corporate parent, from concealing excessive rates to its retail customers through the mechanisms of separate corporate structure and intercorporate contractual agreement. As we stated in *Edmisten*:

> The "roll-in" device, or technique, for rate making computation seems especially appropriate in a case such as this where

> one physically integrated system, interconnected in such a way that all power available to the system can be used to enhance its overall reliability and supply its requirements as a whole, is presided over by two corporate entities. (Citation omitted.) This is especially true when both corporate entities are wholly owned by a parent corporation which benefits from the power generated by the system. This device does nothing more than recognize that the two corporate entities ought, for rate making accounting purposes, be treated as the one electrical power producing and distribution system which, in fact, they are. If then unlawful preferences are indeed accorded to Alcoa to the detriment of Nantahala's customers because of the separate corporate structures and the inter-corporate apportionment agreements, this rate making device would seem to eliminate them.

299 N.C. at 442-43, 263 S.E. 2d at 591.

In the present case, the Commission began its discussion of the stand-alone rate making technique by stating that "[i]n Docket No. E-13, Sub 29 (Remanded) and E-13, Sub 35, this Commission found that the Nantahala and Tapoco electric facilities constituted a single, integrated electric system and were operated as such by TVA as a coordinated part of the TVA system." Following this statement is a list of the evidence relied upon by the Commission in making that ultimate finding. The only fact which the Commission then points to as removing the "underpinnings" of its previous use of the roll-in is the fact that under the 1983 agreement, Nantahala retains, dispatches, and controls the generation from its own hydroelectric generating plants, rather than subjecting them as a unit with Tapoco's plants to TVA's control and receiving levelized entitlements in return for its generation and dispatching rights.

It is abundantly clear from the Commission's findings and conclusions that the decision to establish Nantahala's rates on a stand-alone basis, which resulted in an actual increase of 32 percent over the rates approved by the Commission less than one year earlier in Docket No. E-13, Sub 35, resulted from its failure to focus upon all the material issues raised by the evidence presented. Taken on a provision-by-provision basis, the 1983 In-

terconnection Agreement is an undeniable improvement over the NFA and 1971 Apportionment Agreement in that Nantahala is no longer deprived of even the benefits of its own generation and capacity and control over the dispatch of its own plants. However, the fact remains, as noted by the Commission in its order, that Nantahala can only "supply most of its customers' needs from its own hydroelectric generation during normal water conditions and average consumption periods." During low water or peak consumption periods, and over time, because of anticipated growth in customer load, Nantahala must supplement its available generation by outside purchases of power from TVA or some other source, and this generational deficiency remains the primary problem facing Nantahala and its rate payers.

The full impact of the decision, reflected in the 1977 Jones letter[3] that Nantahala negotiate separately with TVA at the expiration of the NFA and consider its resources separately from those of Tapoco can only be adequately assessed against the historical position of Nantahala's having been less than a fully independent public utility for forty years in terms of design, development, and long-term planning for the future needs of its customers. It would appear that the simple act of contractually severing Nantahala from the power exchange concept and unified operation of the hydroelectric resources of the Little Tennessee River, at a time when Nantahala's own generation is insufficient to meet the demands of its existing public load during periods of peak consumption and/or adverse water conditions, could only aggravate the difficult situation facing Nantahala and its rate payers in the future.

One of the more perplexing "findings" in the Sub 44 order appears to acknowledge this problem, if only indirectly. Finding of Fact No. 10 states: "Nantahala should actively and thoroughly investigate and pursue alternatives to purchasing power from TVA, including, in particular, power purchases from Tapoco, in order to secure for its retail ratepayers purchase power at the lowest possible cost." Nantahala's "pursuit" of power purchases from Tapoco is obviously the subject of the relief being sought before the "appropriate federal jurisdiction"—the FERC—which is re-

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3. *See* discussion of this letter in Part II, *supra*.

ferred to in Finding of Fact No. 8, a remedy sought by both the intervenors and the Commission itself. Such an order is necessitated by Tapoco's apparent refusal to voluntarily sell power to its sister corporation Nantahala.

In the discussion of this finding, the Commission indicates that it is of the opinion that "[n]otwithstanding the fact that the 1983 Interconnection Agreement between Nantahala and TVA provides substantial benefits to the Company's retail rate payers which were not present under the 1962 New Fontana Agreement and the 1971 Apportionment Agreement," it remains the Commission's conclusion that some other form of power supply arrangement ought to be pursued by Nantahala. This discussion and conclusion would appear to acknowledge that despite the improvements represented by the terms of the 1983 Interconnection Agreement over its predecessor agreements, Nantahala has once again failed to enter into the type of long-term power supply contract necessary to meet the needs of a public utility which for the first time in forty years must "stand-alone" and attempt to satisfy its substantially increased public load, with no more generating capacity than it possessed nearly thirty years ago. *See Nantahala I*, slip op. at 29, --- S.E. 2d at ---.

When the OFA, NFA, and various apportionment agreements are viewed in their proper perspective, as mechanisms in a power supply arrangement which allocated the total hydro resources of the "Alcoa power system" between the private use of Alcoa and the public load of Nantahala, it would appear that the Fontana III Agreements are also power supply mechanisms which, taken together, indirectly benefit Alcoa by allocation of the system's more costly power to Nantahala, while Alcoa took, through its other subsidiary, Tapoco, the lower cost generation from the system's larger projects. This issue, concerning the nature and impact of "any indirect benefits" flowing to Alcoa by virtue of the new power supply agreements is only hinted at in the Commission's order. At no point does the Commission give any indication as to what those "indirect benefits" that it has perceived consist of, or of their impact on Nantahala's rates and service. Moreover, the Commission's conclusion that "if any indirect benefits enure to Alcoa as a result of said agreement, any such indirect benefits do not appear to be the result of unlawful preference having been shown to Alcoa by Nantahala to the significant detriment of Nan-

tahala's customers" is somewhat surprising in view of its previous determinations in the Sub 29 (Remanded) and Sub 35 cases that Nantahala, "an empty shell, unable to act in its own self-interest," had been "forced" into separate negotiations with TVA for a new agreement "by the Alcoa-Tapoco decision to exclude Nantahala's interest from its negotiations with TVA." Obviously, as the Commission has itself previously perceived, the question with respect to indirect benefits to Alcoa primarily involves the issue of *parental domination over the subsidiary*, which *results* in preferences being accorded the parent by the subsidiary, and not vice versa.

[2] Again, we have undertaken the foregoing discussion of the evidence and contentions of the parties in an effort to delineate the scope of the inquiry and nature of the issues which were not addressed by the Commission in the Sub 44 order, and which must be addressed in a final and adjudicative fashion upon remand of this case. In this regard, we note that in addition to the four issues specifically raised by the intervenors as discussed in Part III of this opinion, the Commission, in evaluating the effect of the new "stand-alone" agreements on Nantahala's costs of service, must address in a direct and final manner the issue of indirect benefits to Alcoa resulting from the exclusion of Nantahala from the successor agreement to the NFA, the 1983 Tapoco-TVA Exchange Agreement, and whether a roll-in will "cancel" or "true-up" any such indirect benefits as may be found to enure to Alcoa from this changed circumstance.

V.

In their final argument, the intervenors challenge the Commission's determination that it could not set Nantahala's rates on a rolled-in basis absent either a voluntary commitment on the part of Alcoa to support Nantahala financially should any revenue shortfall occur under a roll-in, or an order by FERC directing the physical sale of Tapoco power to Nantahala. This determination appears to be contained within Finding of Fact No. 8, which states:

> *The roll-in methodology proposed herein by the Intervenors for pro forma purposes in fixing Nantahala's rates without any accompanying order from the appropriate federal jurisdiction requiring the physical sale of Tapoco power to Nantahala or a guarantee of Nantahala's financial integrity*

> *by Alcoa* will ultimately result in insolvency or bankruptcy of Nantahala and an inability of Nantahala to meet its customers' needs for electric power, and will not serve the best interests of Nantahala's customers or its service area in North Carolina. Further, if and when the federal jurisdiction having authority to allocate Tapoco power to the Nantahala service area should order such allocation, then the Commission can reopen this docket to readjust the rates of Nantahala to reflect the actual cost of such purchases from Tapoco as may be approved by said federal jurisdiction. (Emphasis added.)

The intervenors contend that the Commission's reasoning is flawed in two respects: (1) the Commission has grossly underestimated its regulatory authority over Alcoa, should it again determine that Alcoa is a North Carolina public utility under N.C.G.S. § 62-3(23)c, and (2) its analysis that rolled-in rates will lead Nantahala into bankruptcy is completely inconsistent with its own prior orders in Docket Nos. E-13, Sub 29 (Remanded) and Sub 35.

It is evident from this finding that the Commission's decision not to adopt the roll-in methodology rests, in part, upon its erroneous assumption that it is powerless to compel Alcoa's financial support of its subsidiary Nantahala's future rates. Such a determination on the part of the Commission is clearly erroneous. As we observed in *Nantahala I*, "pursuant to N.C.G.S. § 62-30, the Commission is vested with broad authority to insure the effective regulation of public utilities in North Carolina, including 'all such . . . powers and duties as may be necessary or incident to the proper discharge of its duties.'" Slip op. at 152, --- S.E. 2d at ---. *See also id.* at 153, n. 23, --- S.E. 2d at ---. Further, in rejecting Alcoa's argument that the Commission lacked a legal basis for holding it financially responsible for Nantahala's refund obligation, we stated:

> It is beyond dispute that Nantahala's financial stability and hence its ability to serve the public depends on Alcoa's ultimate legal responsibility to stand behind the refund obligation. The broad grants of authority to the Commission to ensure the effective regulation of Nantahala and the full protection of Nantahala's customers would be rendered nugatory if, upon a finding that its parent's affiliation had severely and detrimentally affected Nantahala's rates and ability to

effectively provide service in its franchise area, the Commission were powerless to order remedial action against the parent corporation.

. . . .

Therefore, once the Commission determined that Alcoa was a statutory public utility under N.C.G.S. § 62-3(23)c, it could rely upon the doctrine of "piercing the corporate veil" between Nantahala and its parent to hold Alcoa financially responsible for Nantahala's refund obligation to the extent its affiliation had adversely affected Nantahala's rates as "necessary or incident" to the proper discharge of its regulatory duties under Chapter 62. N.C.G.S. § 62-30. Accordingly, we reject Alcoa's argument that there is no statutory or legal basis for its refund liability.

Slip op. at 153-54, 156, --- S.E. 2d at ---, ---.

[3] In its two previous orders implementing a roll-in rate making methodology, the Commission has not hesitated to place financial responsibility upon Alcoa for any portion of Nantahala's refund obligation as Nantahala is itself unable to pay while continuing to render adequate service to its customers. The relief ordered by the Commission, and affirmed by this Court, in the two prior rate cases is essentially the same relief sought by the intervenors in this case. There is no principal distinction between a refund financed by Alcoa to rate payers on the basis of excessive rates charged by Nantahala over a historic period, and a periodic payment by Alcoa to Nantahala for any current or future revenue shortages on Nantahala's books which may result from prospective rolled-in rates. Both forms of relief are merely ancillary to the establishment of a just and reasonable rate schedule as approved by the Commission for Nantahala. Thus, assuming, *arguendo*, that the Commission again finds that Alcoa is a North Carolina public utility pursuant to N.C.G.S. § 62-3(23)c, it may also require Alcoa, as a public utility, to protect Nantahala financially as to future rates, in much the same way as it has been held responsible for past locked-in rates in *Nantahala I* and *Nantahala II*.

[4] In short, upon the appropriate findings of fact, the Commission is well-endowed with powers under the provisions of Chapter

62 of the North Carolina General Statutes to protect Nantahala from financial hardship as to any past rates collected in Docket No. E-13, Sub 44 which are determined to be excessive by requiring Alcoa to make refunds, just as had been required in the two prior general rate cases. As to future rates, Nantahala can be protected from any financial hardship that the Commission may determine to result from rolled-in rates simply by requiring Alcoa to periodically (monthly) pay to Nantahala any revenue shortfall which appears in Nantahala's accounting data as a result of Alcoa's decision to maintain separate corporate entities for Nantahala and Tapoco. If, as the intervenors contend, the evidence warrants findings that Alcoa designed the subsidiaries and the single system in such a manner that Nantahala's status as a stand-alone utility under the Fontana III Agreements works to the detriment of Nantahala and its customers under current operating conditions, then the Commission, should it choose to do so, would be acting well within its regulatory authority in calling upon Alcoa to support Nantahala financially.

One final aspect of the Commission's order which warrants comment is the discussion concerning Nantahala's access to Tapoco's hydro generation. In its discussion of Finding of Fact No. 8, the Commission correctly noted that the roll-in technique does not make the benefits of Tapoco's generation available to Nantahala. That is, the roll-in does not effectuate a diversion of energy and capacity entitlements returned to Tapoco by TVA under the system's exchange arrangements, it is merely an accounting technique to determine rate base, revenues, and to allocate costs among jurisdictional customers. The Commission goes on to state that the "Intervenors and this Commission have now requested relief before the Federal Energy Regulatory Commission (FERC), regarding the issue of access by Nantahala to Tapoco power, an issue which should properly be decided in that forum by FERC." The text that follows this statement merely repeats the contents of Finding of Fact No. 8, indicating that the Commission would reopen this docket should FERC order the requested relief.

On 26 February 1985, the Administrative Law Judge ("ALJ") presiding over the consolidated cases concerning the new power supply agreements with TVA issued an initial decision approving, with conditions, the proposed tariff changes effectuated by the execution of the Fontana III Agreements. Tapoco, Inc., Initial Deci-

sion, 30 F.E.R.C. ¶ 63,050 (1985). The ALJ found that in order to safeguard Nantahala and its rate payers from the effects of some of the proposed changes from the prior Fontana arrangements, approval of the Fontana III Agreements would have to be subject to specific conditions pursuant to Sections 205 and 206 of the Federal Power Act. In particular, the ALJ determined that to reduce the vulnerability of Nantahala's customers stemming from the fact that Nantahala will have to stand alone as an independent public utility for the first time in over forty years without having the wherewithal, from either a financial or electric generating standpoint, to meet its load, conditions would be necessary to allow Nantahala a "breathing space" while it attempts to become a self-sufficient public utility. *Id.* at pp. 65,286-91.

The conditions imposed in the order give Nantahala and its rate payers a priority to take some of the low-cost power from the Cheoah and Santeetlah hydroelectric plants which otherwise goes to Tapoco or Alcoa after the coordination and exchange arrangements occur with TVA, for a temporary period lasting until Nantahala has adequate and reliable generating capacity to serve its customers.

> In other words, the priority will end when Nantahala has enough capacity which not only allows the company to meet its customers' entire load, but also enables it to hold in reserve an amount sufficient to assure uninterrupted service at all times at a reasonable cost.
>
> A reasonable cost is perhaps the most pivotal factor here.

30 F.E.R.C. ¶ 63,050 at p. 65,288. After discussing alternative routes which Nantahala may take towards attaining self-sufficiency, the ALJ added:

> Apart from the self-generation or purchasing requirements set forth above, it will be sufficient to ascertain when and if Nantahala has fulfilled its generating capacity-obligation by using the guidelines set by the Southeastern Electric Reliability Council (SERC) . . . . On condition that both the guidelines of the SERC and the requirements outlined above have been satisfied, Nantahala would be deemed

> to be a truly independent public utility which no longer, on behalf of its ratepayers, would be entitled to a priority to the low-cost power that would revert to Tapoco or Alcoa.

Id. at pp. 65,288-89.

The ALJ's initial decision was quickly challenged by Tapoco, in particular, on various grounds. On 17 May 1985, the presiding judge ruled upon the motions for reconsideration submitted, and summarily rejected all of the companies' arguments against conditions imposed on the Fontana III Agreements. Tapoco, Inc., Rulings Upon Motions for Reconsideration of Initial Decision, 31 F.E.R.C. ¶ 63,056 (1985). Thus, the Commission may take the opportunity presented by the remand of this case for further proceedings to evaluate the impact of these decisions upon Nantahala's costs of service.

VI.

[5] The intervenor Jackson Paper Manufacturing Company presents two questions for review which are entirely separate from the roll-in issue. Jackson Paper argues that the Commission's decision refusing to establish a new rate class for Large Industrial Service (LIS) as proposed by Jackson Paper is not based upon substantial evidence and that it unlawfully discriminates against Jackson Paper in violation of N.C.G.S. § 62-140.

Jackson Paper correctly notes in its brief that upon appeal, orders entered by the Commission "shall be prima facie, just and reasonable," pursuant to N.C.G.S. § 62-94(e), but that this provision does not preclude an aggrieved party from showing that the evidence offered rebuts the prima facie effect of the order and that the order was unsupported by competent, material, and substantial evidence in view of the entire record. N.C.G.S. § 62-94(b)(5) and (6). However, we do not agree with appellant's contention that Finding of Fact No. 25, which states that "[t]he proposed rate schedule LIS (Large Industrial Service) should not be approved in this proceeding," is in fact unsupported by the requisite evidentiary showing. Nor do we agree with the contention that the Commission unlawfully discriminated against Jackson Paper by its failure to establish a separate LIS rate for its service.

Initially, we note that the burden of showing the impropriety of rates established by the Commission lies with the party alleg-

ing such error. *Utilities Comm. v. Carolinas Committee*, 250 N.C. 421, 109 S.E. 2d 253 (1959). "The rate order of the Commission will be affirmed if upon consideration of the whole record we find that the Commission's decision is not affected by error of law and the facts found by the Commission are supported by competent, material and substantial evidence, taking into account any contradictory evidence or evidence from which conflicting inferences could be drawn." *Utilities Commission v. Duke Power Co.*, 305 N.C. 1, 10, 287 S.E. 2d 786, 792 (1982).

The evidence before the Commission shows that Jackson Paper acquired a paper mill located in Sylva, North Carolina, from Mead Paper Company in the 1970s. Jackson Paper remodeled the plant and radically changed the manufacturing process to produce fluted, corrugated material used in the manufacture of boxes. Jackson Paper started up its operations in 1982, one year after the test year 1981, and expected to reach a full production level of two hundred tons per day by early 1984. At full production, Jackson Paper will have a monthly non-coincident peak of 6,100 kW and a load factor of 85 to 90 percent. In addition, the evidence shows that Jackson Paper is the largest retail customer on Nantahala's system and that it is more than 50 percent larger and has a considerably higher load factor than Nantahala's next largest customer, Western Carolina University.

Nantahala's existing rate schedule for large industrial customers is its "Large General" ("LG") service schedule. The LG schedule as it existed prior to this case and as it was filed for the rates proposed in this case contained a demand limitation of 4,000 kW and stated: "Service for demands of 4,000 kW and over shall be under rate schedules to be filed with the North Carolina Utilities Commission."

At the hearing, three witnesses testified and presented exhibits on the subject of rate design: (1) Nantahala's witness, John K. Carson; (2) Jackson Paper's witness, Richard J. Rudden; and (3) the Public Staff's witness, Benjamin Turner. Nantahala's witness, Carson, sponsored the rate design ultimately adopted by the Commission. This schedule is a modification of Nantahala's old LG rate with the 4,000 kW demand limitation eliminated. Jackson Paper's witness, Rudden, recommended the establishment of a

new class of service for Nantahala, the LIS schedule, and offered a proposed rate design for that class.

In general, witness Rudden testified to differences in load characteristics between Jackson Paper and other large general service customers which might ordinarily justify a difference in rates charged to Jackson Paper to recover Nantahala's costs of service. Accordingly, Rudden recommended a new rate class for large industrial service customers, such as Jackson Paper, calculated on Nantahala's average or base costs rather than on the incremental costs Nantahala actually incurs in serving Jackson Paper. These "base" or "average" costs are the fixed costs of service separate from the costs of TVA purchased power. Rudden also recommended that Nantahala remove the current 4,000 kW limitation in the LG rate and make it available to all large general service customers. The proposed LIS class would be an option to those LG customers with demands exceeding 5,000 kW and whose load factors would make LIS more economical. At the time of the hearing, Jackson Paper was the only Nantahala customer which would qualify for the proposed LIS rate schedule.

In its discussion of the reasons why the proposed LIS rate would not be approved in this proceeding, the Commission stated that it "is unconvinced that the LIS rate schedule proposed for the Jackson Paper Manufacturing Company is cost justified . . . ." The evidence which apparently supports this conclusion is found in the immediately preceding discussion. After detailing the testimony by witness Rudden which would appear to support the LIS schedule solely from the perspective of load characteristics and average costs of service, the Commission stated:

> On cross-examination, Witness Rudden agreed that, while the LIS schedule would permit Nantahala to sell power at the rate of approximately 2.0 cents per kw[h], Nantahala must pay TVA 3.4 cents per kw[h] (based on a 100% load factor for purchased power) with the difference being made up by the other customer classes. In fact, Late-Filed Exhibit RJR-8 requested by Dr. Hammond shows that the overall increase in revenue requirement, after including the JPC load, will be $1,599,509; and only 56% of said $1,599,509 increase will be paid by Jackson Paper Company under the LIS rate

schedule, leaving a deficit which must be paid by the remaining rate classes.

Jackson Paper first challenges the Commission's determination by arguing that Rudden's testimony recommending the new rate class was uncontradicted and that there is no evidence supporting the Commission's conclusion that the proposed rate schedule should be rejected. However, even assuming, *arguendo*, that there had been no other evidence on the issue of rate design, the Commission may permissibly reject uncontradicted testimony. *Utilities Commission v. Duke Power Co.*, 305 N.C. 1, 287 S.E. 2d 786. Even where there is no direct evidence in the record contrary to the expert's opinion, a regulatory body may use its own judgment in evaluating evidence as to a matter within its expertise and is not bound by the uncontradicted recommendations of experts. *Id.* Therefore, the Commission was not required to accept Rudden's testimony even if there had been no contrary expert testimony on the question of rate design. Moreover, the Commission needed no additional evidence contradicting Jackson Paper's expert in rejecting its proposal.

In its order, the Commission stated that it was unconvinced that the LIS rate schedule proposed by Jackson Paper is cost justified. The Commission based this conclusion on the fact that the additional costs imposed by Jackson Paper would not be recovered through rates under the LIS schedule. This is so because Nantahala would be required to purchase the power it actually sold to Jackson Paper from TVA at 3.4 cents per kWh and could only sell that power to Jackson Paper for 2.0 cents per kWh under the LIS schedule.

Jackson Paper argues that the reasons recited by the Commission in rejecting the LIS rates are faulty because Nantahala's average cost of power from all sources is less than 1.0 cent per kWh and that the 2.0 cents per kWh mentioned by the Commission does not include the cost of power Nantahala recovers through the purchased power adjustment clause.

Jackson Paper's argument would appear to be logically correct but for the fact that it fails to take into account the *time* at which the Jackson Paper load was added onto the Nantahala system. As Nantahala points out in its brief, this factor is crucial because the load on Nantahala's system exceeded the capacity of

Nantahala's hydroelectric generating stations long before Jackson Paper became a customer. Therefore, based on the actual source of power to serve Jackson Paper, all of Jackson Paper's peak purchases come from power Nantahala purchases from TVA at 3.4 cents per kWh. The rate of 2.0 cents per kWh to which Jackson Paper refers includes all purchased power costs for the test year. There would be no additional revenues from the PPCA during the test year and in the future Nantahala will actually be purchasing additional power at 3.4 cents per kWh[4] solely because Jackson Paper's new load must be served, but would only be receiving 2.0 cents per kWh for the power sold to it under the proposed LIS rate. Therefore, the Commission's conclusion that the LIS rate schedule is not "cost justified" is supported by substantial evidence in the record taken as a whole and will not be disturbed on appeal. *Utilities Commission v. Duke Power Co.*, 305 N.C. 1, 287 S.E. 2d 786.

In addition, the Commission concluded that the LIS rate schedule would result in a revenue requirement deficit and that the remaining rate classes would be required to make up this deficit. Jackson Paper argues that this conclusion is irrelevant because leaving it on the LG rate schedule will also produce a deficit. Although it appears that the Commission has used a faulty example to illustrate its point, the principle remains sound: serving Jackson Paper on schedule LIS will unfairly increase rates to Nantahala's other customers in the long run, and the rates to these other customers will not increase as greatly if Jackson Paper is left on the LG schedule.

Jackson Paper makes a number of other arguments concerning the LG rate schedule established by the Commission in this case. However, all of these arguments are based upon cost of service calculations for Nantahala using *average* embedded costs; upon the proposed LIS schedule which is based on the *average* cost of providing power to Jackson Paper; and upon cost allocation factors which use *average* costs. The Commission, however, analyzed the LIS proposal on the basis of *incremental* costs to Nantahala to serve Jackson Paper. Whatever the abstract merit

4. We note that in view of the Administrative Law Judge's ruling on the Fontana III Agreements, the actual cost of purchased power may vary, but the principal involved would essentially remain the same.

of Jackson Paper's proposal may be, the company cannot escape the fact that it is the most recent large addition to Nantahala's already over-burdened system.

In fact, its witness, Rudden, admitted that Jackson Paper causes Nantahala to purchase additional power from TVA. Mr. Rudden further admitted that these additional energy requirements cause an increase in costs that will ultimately be spread over all of Nantahala's customers. This significant post-test year event and its implications cannot be viewed in isolation, and the Commission was properly concerned that the new rate schedule would not result in a fair and equitable recovery of the incremental costs imposed on Nantahala's system.

In order to accommodate the impact of Jackson Paper's load on the total Nantahala retail load, the Commission chose a compromise rate schedule which would permit Nantahala to receive approximately 2.3 cents per kWh for power sold to all customers on the LG schedule, including Jackson Paper. At this rate, Nantahala is unable to recover its entire incremental cost from Jackson Paper, but it is permitted to recover more of the actual cost of serving Jackson Paper than it would be under the proposed LIS rate. The rate established allows Nantahala to recover the average cost of serving all customers on the entire LG schedule. We conclude that the Commission properly exercised its discretion in refusing to single out one customer and set rates for that "class" based on the average costs of serving that isolated customer where the customer in question causes the utility to incur high incremental costs.

Although one of the goals of rate structure is the elimination of intra-class cross-subsidies, another goal is simplicity of rate structure. *Utilities Commission v. Edmisten*, 291 N.C. 424, 230 S.E. 2d 647 (1976). Obviously, it is impractical to have a separate class for each customer, despite the existence of some significant differences in load characteristics. Therefore, a balance must be struck. Based upon the record before us, we find no grounds upon which the Commission's choice between available options for rate design may be disturbed on appeal.

In its final argument, Jackson Paper maintains that the rate structure that results from the Commission's order is discriminatory in its failure to recognize the substantial differences in serv-

ice and conditions which exist between Jackson Paper and the other customers on the LG rate schedule. Jackson Paper cites *Utilities Commission v. Edmisten*, 291 N.C. 424, 230 S.E. 2d 647 (where substantial differences in services or conditions do exist, unreasonable application of the same rates may be discriminatory and thus improper), in support of its argument that the Commission's failure to establish the LIS rate for its service was unlawfully discriminatory. We do not agree.

Every rate schedule necessarily discriminates between customers within the class to which it applies to some extent. N.C.G.S. § 62-140, however, prohibits only *unreasonable* or *unjust* discrimination. *Utilities Comm. v. Oil Co.*, 302 N.C. 14, 273 S.E. 2d 232 (1981). The burden of proving that a rate is discriminatory lies with the complaining party. *Id.* Jackson Paper argues that its witness Rudden's testimony established the requisite differences in condition which would justify a separate rate for LIS customers. However, as we stated in our discussion of the evidence supporting the Commission's rejection of the LIS proposal, the Commission need not accept an expert's uncontradicted testimony, even where such testimony tends to show substantial differences in the conditions of service justifying a separate rate schedule for a particular customer or class of customers. It may yet, in the proper exercise of its own expertise and discretion and based on evidence indicating that LIS rate was not cost justified, refuse to establish a separate rate class for Jackson Paper without unreasonably or unlawfully discriminating against it.

Under the Commission's order, Jackson Paper was placed in the existing class of large general service customers. Modification was made in the design of this rate to allow for significantly larger customers, such as Jackson Paper. The Commission merely refused to treat Jackson Paper differently than Nantahala's other customers for the reasons stated above. Jackson Paper is, as a result, classified under the LG schedule along with Nantahala's other large purchasers of power. It, therefore, continues to benefit from Nantahala's hydroelectric generation because Nantahala's rates are set to recover the average cost to serve the average customer on that schedule. Jackson Paper is not treated differently than Nantahala's other large purchasers of power in light of all the relevant circumstances, and thus unreasonable discrimination does not result from the Commission's order. Ac-

cordingly, the portion of the Commission's order which deals solely with Jackson Paper's rates is affirmed.

VII.

For the reasons stated, we reverse the portions of the Commission's final order of 12 April 1984 which address the issue of a roll-in rate making methodology in setting Nantahala's retail electric rates in Docket No. E-13, Sub 44, and approving the rate schedule filed by Nantahala on 13 December 1983. We affirm those portions of the order which concern the design of rates applicable to intervenor Jackson Paper Manufacturing Company. This case is remanded to the Commission for further proceedings in light of our decisions in *Nantahala I* and *Nantahala II*, and consistent with this opinion.

Affirmed in part.

Reversed in part and remanded.

APPENDIX D

Opinion of The North Carolina Utilities Commission, dated April 12, 1984

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-13, SUB 44

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of

Application of Nantahala Power and Light Company for Authority to Adjust and Increase Its Electric Rates and Charges

ORDER DENYING EXCEPTIONS AND MOTIONS FOR RECONSIDERATION AND FURTHER HEARING AND REAFFIRMING "ORDER GRANTING PARTIAL RATE INCREASE"

(Issued 12 April 1984)

ORAL ARGUMENT HEARD IN:

Commission Hearing Room 217, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina, March 9, 1984, at 10:00 a.m.

BEFORE:

Chairman Robert K. Koger, Presiding; and Commissioners Sarah Lindsay Tate, Edward B. Hipps, A. Hartwell Campbell, Douglas P. Leary, and Ruth E. Cook

APPEARANCES:

For Nantahala Power and Light Company:

Robert C. Howison, Jr., and Edward S. Finley, Jr., Hunton and Williams, Attorneys at Law, P.O. Box 109, Raleigh, North Carolina 27602

For Aluminum Company of America and Tapoco, Inc.:

Ronald D. Jones and David R. Poe, LeBoeuf, Lamb, Leiby and McRae, [sic] Attorneys at Law, 336 Fayetteville Street, 7th Floor, Raleigh, North Carolina 27602.

For the Attorney General:

Richard L. Griffin, Assistant Attorney General, North Carolina Department of Justice, P.O. Box 629, Raleigh, North Carolina 27602.

For: The Using and Consuming Public

For the Public Staff:

James D. Little, Chief Counsel, Public Staff-North Carolina Utilities Commission, P.O. Box 991, Raleigh, North Carolina 27602.

For: The Using and Consuming Public

For the Intervenors:

William Crisp and Robert F. Page, Crisp, Davis, Schwentker and Page, Attorneys at Law, P.O. Box 751, Raleigh, North Carolina 27602.

For: Counties of Cherokee, Graham, Jackson, Macon and Swain; Towns of Andrews, Bryson City, Dillsboro, Robbinsville and Sylva; Tribal Council of Eastern Band of Cherokee Indians; and Henry J. Truett, Howard Paton, Veronica Nicholas, O. W. Hooper, Jr., and Alvin E. Smith

David H. Permar, Hatch, Little, Bunn, Jones, Few and Berry, Attorneys at Law, P. O. Box 527, Raleigh, North Carolina 27608.

For: Jackson Paper Manufacturing Company

BY THE COMMISSION: On November 29, 1983, and December 22, 1983, the Commission entered Orders in this docket respectively entitled "Notice of Decision and Order" and

"Order Granting Partial Rate Increase" whereby Nantahala Power and Light Company (Nantahala) was granted authority to increase its rates and charges to the Company's retail customers in North Carolina by $1,335,857 on an annual basis effective November 29, 1984.

On January 19, 1984, counsel for and on behalf of Jackson Paper Manufacturing Company, an Intervenor herein, filed exceptions and notice of appeal with respect to the "Order Granting Partial Rate Increase" pursuant to G.S. 62-90 and also a motion for reconsideration and further hearing pursuant to G.S. 62-80 and G.S. 62-90(c).

On January 23, 1984, the Commission entered an Order in this docket whereby all parties to the proceeding were granted an extension of time to and including Wednesday, January 25, 1984, to file exceptions to the above-referenced Order of the Commission.

On January 25, 1984, the Attorney General; the Public Staff; the Counties of Cherokee, Graham, Jackson, Macon and Swain; the Towns of Andrews, Bryson City, Dillsboro, Robbinsville, and Sylva; the Tribal Council of the Eastern Band of Cherokee Indians; and Henry J. Truett, Howard Patton, Veronica Nicholas, O. W. Hooper, Jr., and Alvin E. Smith (Intervenors) filed exceptions, notice of appeal and a motion for further hearing and oral argument on exceptions pursuant to G.S. 62-80 and G.S. 62-90(c).

On February 6, 1984, Aluminum Company of America (Alcoa) and Tapoco, Inc., filed a joint response in opposition to the above-referenced motion of the Intervenors for further hearing and oral argument.

On February 8, 1984, Alcoa and Nantahala filed a Stipulation in this docket for consideration and approval by the Commission.

On February 10, 1984, Nantahala filed its response in opposition to the Invervenors' exceptions and motions for reconsideration and further hearing.

On February 20, 1984, the Intervenors filed a motion in this docket entitled "Motion to Hold in Abeyance" and on Febru-

ary 24, 1984, Nantahala filed its reply in opposition to said motion.

On February 29, 1984, Alcoa and Tapoco filed a joint response in opposition to the Intervenors' "Motion to Hold in Abeyance."

By Order dated March 1, 1984, the Commission scheduled an oral argument for Wednesday, March 7, 1984, to consider the following matters:

(a) Motion for reconsideration filed on January 19, 1984, by Jackson Paper Manufacturing Company;

(b) Exceptions and motion for reconsideration, further hearing and oral argument filed on January 25, 1984, by the Intervenors;

(c) Stipulation filed on February 8, 1984, by Alcoa and Nantahala; and

(d) "Motion to Hold in Abeyance" filed on February 20, 1984, by the Intervenors.

On March 2, 1984, Alcoa filed a pleading in this docket entitled "Alcoa's Supplement to and Statement in Support of Stipulation."

On March 5, 1984, the Commission entered an Order rescheduling the oral argument in this matter for Friday, March 9, 1984.

On March 22, 1984, counsel for Alcoa filed a letter in this docket dated March 21, 1984, wherein it was stated that Alcoa " . . . will forego approval and consummation of the stock transfer now being considered in Docket No. E-13, Sub 51, as a condition of the Stipulation of refund liability in the Sub 29 and Sub 35 dockets."

By letter dated March 27, 1984, which this Commission will treat as a motion, counsel for and on behalf of the Intervenors requested the Commission to either disregard Alcoa's letter filed herein on March 22, 1984, in its entirety or " . . . strike or disregard all portions of such letter which appear between paragraph one and the signature thereof."

Based upon careful consideration of the "Order Granting Partial Rate Increase" entered in this docket on December 22, 1983, the various motions and pleadings pending before the Commission herein, the oral argument of the parties on said motions before the full Commission on Friday, March 9, 1984, and the entire record in this proceeding, the Commission is of the opinion, finds, and concludes that all of the findings of fact, conclusions and decretal paragraphs set forth and contained in the "Order Granting Partial Rate Increase" are fully supported by the record, that said Order should be reaffirmed by the Commission, and that the exceptions, and motions for reconsideration and further hearing filed herein by the Intervenors should be overruled and denied. The Commission further concludes that the "Motion to Hold in Abeyance" filed herein by the Intervenors on February 20, 1984, should also be denied.

With respect to the Stipulation filed herein by Alcoa and Tapoco on February 8, 1984, the supplement to said Stipulation and statement in support thereof filed by Alcoa on March 2, 1984, and the further letter filed in this proceeding by Alcoa on March 22, 1984, the Commission concludes that said pleadings should be disregarded in their entirety and that the Stipulation should not be approved in this docket. Furthermore, in ruling upon the various motions filed herein by the Intervenors, the Commission has completely disregarded and given no weight whatsoever to the Stipulation and the other pleadings associated with said Stipulation which have been filed herein by Alcoa and Tapoco. In this regard, the Commission concludes that it is appropriate to grant the motion to disregard and strike Alcoa's letter filed herein on March 22, 1984, set forth by the Intervenors in their letter dated March 27, 1984, which has been filed herein and treated by the Commission as a motion.

IT IS, THEREFORE, ORDERED as follows:

1. That the exceptions and motion for reconsideration and further hearing filed herein by Jackson Paper Manufacturing

Company on January 19, 1984, be, and the same are hereby, denied.

2. That the exceptions and motion for reconsideration and further hearing filed herein on January 25, 1984, by the Intervenors be, and the same are hereby, denied.

3. That the "Motion to Hold in Abeyance" filed herein by the Intervenors on February 20, 1984, be, and the same is hereby, denied.

4. That the Stipulation and "Alcoa's Supplement to and Statement in Support of Stipulation" filed herein by Alcoa and Tapoco on February 8, 1984, and March 2, 1984, respectively, are not approved by the Commission and have been disregarded in ruling upon the motions filed herein by the Intervenors.

5. That the motion to disregard and strike set forth by the Intervenors in their letter filed herein and dated March 27, 1984, be, and the same is hereby, granted as it pertains to the letter filed in this docket on March 22, 1984, by Alcoa.

6. That the "Order Granting Partial Rate Increase" heretofore entered in this docket on December 22, 1983, be, and the same is hereby, reaffirmed.

ISSUED BY ORDER OF THE COMMISSION.

This the 12th day of April 1984.

NORTH CAROLINA UTILITIES COMMISSION

/s/ SANDRA J. WEBSTER
Sandra J. Webster, *Chief Clerk*

(SEAL)

Commissioners Tate and Leary dissenting.
Commissioner Branford did not participate.

COMMISSIONERS TATE & LEARY DISSENTING. It is with some trepidation that we have concluded we must dissent from a panel order. Normally, we are loath to second-guess a panel of Commissioners who have heard the evidence in a case and are, therefore, better equipped to come to a conclusion concerning the facts and the laws governing that case. However, there is nothing normal about the Alcoa-Nantahala-Tapoco situation. The history of the formation and name changes, reorganizations, Fontana Agreements (both Old and New), Apportionment Agreements, the exchanges of land and of hydro-electric facilities and the various arrangements for the purchase, sale and/or exchange of power between TVA, Alcoa, Tapoco and Nantahala are tortuous in the extreme and far too voluminous to be catalogued here. We have spent more hours in this Commission either studying Nantahala history and exhibits, reading briefs and legal cases and hearing evidence in two rate cases, innumerable oral arguments, as well as a proceeding to sell the stock of Nantahala, than in cases of any other single utility regardless of its size. It is because of our familiarity with the history and the facts and the knowledge acquired from our participation in other proceedings that we feel compelled to dissent from an Order of a panel of this Commission.

Stripped of the legal niceties and the voluminous explanations, rationalizations, and obfuscations that have filled hundreds of pages of testimony in Docket Nos. E-13, Sub 29 Remanded, E-13, Sub 35, E-13, Sub 44 and related proceedings, there are certain clear findings of fact which have been made by this Commission on at least two occasions and definitive statements that have been made in Order of the North Carolina Court of Appeals in *Utils. Comm. v. Edmisten*, 40 NC App. 109 (1979) and the North Carolina Supreme Court Order in *Utils. Comm. v. Edmisten* 299 N.C. 432 (1980). Also the Commission's Orders in Docket No. E-13, Sub 29 (remanded) and E-13, Sub 35 have been unheld [sic] by the North Carolina Court of Appeals. (*State of North Carolina, et al, v. Nantahala Power & Light Co., et al.*, No. 822100C1034,

(December 6, 1983); *State of North Carolina et al., v. Nantahala Power and Light Company, et al.* No. 82100C1289 (February 21, 1984))

There are certain incontrovertible conclusions which result from a distillation of all three cases:

1. There is one electric system composed of the dams, transmission and distribution lines of Nantahala and Tapoco, owned by one parent, Alcoa. It is so clear that this is one system that visitors to the Fontana Dam will find a large map on the walls of the visitors' center outlining in large letters "Alcoa System".

2. Throughout the agonized history of this corporation and its subsidiaries (whatever they happen to be called at various times) there has been one owner - manipulator and two (at least) owned manipulatees or puppets. That was so in the beginning and remains so today. *Quod ab initio non valet in tractu temporis non convalescet.*

3. As a result of 1 and 2 above, the retail ratepayers of Nantahala Power and Light Company have been systematically deprived of the advantage of the cheaper power produced by the "Alcoa System's" hydro-electric facilities. Through seven long years of litigation, both in the Federal and State Courts, the lower rates found fair and reasonable by this Commission have *never* gone into effect and the ratepayers in Nantahala territory have never received their just due in rates or refunds. *Quod per recordum probatum, non debet esse negatum.*

Throughout all of these cases and oral arguments and litigations, there has periodically been raised a red flag-*bankruptcy*! Our first awareness of the hoisting of this red flag was at the first oral argument following the remand of the Sub 29 case to the Commission from the Supreme Court of North Carolina. That argument was held on July 11, 1980, when counsel for Nantahala said:

> " . . . what we deem to be most important, and that is the absolute question of survival, survival; ability to live,

> of Nantahala Power & Light Company. . . ." (p. 41 of Transcript of E-13, Sub 29 - Oral Argument)

or referring to the refunds:

> "We haven't got that cash in the bank, but we have got the property and when we paint the black picture about what could happen if you suddenly put the screws to us and say, we don't care about the ratepayers, we don't care about the people in Southwestern North Carolina who want electricity to see at night or to heat water or to run the machines in their factories or the lathes in their little woodworking shops; we don't care about any of them; we want money." (p. 65, Tr.)

or again:

> "Before you come down and say, quote, "close your doors, Nantahala, to give these people some money now and let them sleep in the heat tonight and in the dark because there is no air-conditioning and no electricity, or next winter in the cold . . ." (p. 66, Tr.)

HORROR OF HORRORS! Surely it would never be possible for a responsible regulatory body to take actions that would lead to the disastrous results so dramatically described by Nantahala's attorneys.

Aligned with the red flag of horror, was painted a plaintive almost pitiful picture of a small struggling corporation, composed of a few dedicated hard-working and bewildered employees, who were struggling to keep their heads above the water while besieged by a mighty malevolent regulatory body who was determined to bring about the eminent [sic] destruction of their company. *HOGWASH*!

These have been the pictures verbally painted, and painted flamboyantly, not to say luridly, for all to hear. This is the fiction that has been placed before us so vividly that it has taken on the semblance of a drama. Now let us return to reality.

1. Since 1971, Nantahala has continued to collect rates from its ratepayers which sufficiently cover all of its costs and while those rates have been found to be excessive by the Commission and the Courts, nonetheless Nantahala's ratepayers have continued to pay them.

2. The refunds that were ordered by this Commission in E-13, Sub 29 and Sub 35, were ordered to be paid by Nantahala, to the extent that it was able to do so, and by Alcoa. If the Commission's Orders are upheld by the Supreme Court of North Carolina, as they have been by the North Carolina Court of Appeals, it is likely that again the refunds will be ordered to be paid by both Nantahala and Alcoa. In written documents filed with the Commission, Alcoa has conceded that Nantahala is only able to pay two million dollars worth of refunds and that in the event the Commission's Orders are upheld, the rest of the obligation to refund will become Alcoa's.

3. Even in the event that Alcoa was found not to be liable for making the refunds, and Nantahala was ordered to do so, this Commission has an obligation to see that any utility continue to provide adequate service to its customers. Even in the cases where small water companies with only twenty customers have gotten into financial difficulties, this Commission has acted promptly to assure that there would be adequate maintenance of the system and continued service to all customers.

So we see the spectre of no heat, no light, and no power "to run the machines in their factories or the lathes in their little woodworking shops" bears more resemblance to an old melodrama than it does to the facts of this case and of regulation in general. Having been bombarded by this hyperbole in innumerable hearings, it has gradually lost its effect to shock or even to worry us. There will be no loss of service to Nantahala's customers.

Now to the second red flag or perhaps more properly, red herring. The employees of Nantahala, good, hard-working,

industrious mountain people will lose their jobs and be taken over by some non-caring, out-of-State giant corporation who will not maintain the level of service that present Nantahala employees provide their customers. This is stated, or sometimes implied, although at present Nantahala Power and Light Company is owned by a Fortune 500 Company whose headquarters are in Pittsburgh, Pennsylvania. The board of directors of Nantahala are appointed by Alcoa; its chief executive is chosen by Alcoa. Even if the ownership of Nantahala were transferred to an out-of-State "carpet-bagger", could it be much worse than the present situation? Alcoa has stated on numerous occasions that it intends to make no more investment in Nantahala Power and Light Company. Alcoa will not provide its subsidiary with any "comfort letter" to any financial institution which would enable Nantahala to undertake the needed renovation of its electric facilities and extension of its lines. It is Alcoa's overweening desire to retain the bulk of the hydro-electric power generated by the "Alcoa System" for its smelting operations in Tennessee. Therefore, Nantahala is presently owned, not only by an out-of-State indifference [sic] corporation, but far worse, by an out-of-State corporation whose interests are antithetical to those of its subsidiary Nantahala and to Nantahala's obligation to serve its customers in Western North Carolina. The red flags and/or red herrings are nothing more than "sound and fury signifying nothing".

The majority fails to understand a fundamental fact in determining that Nantahala Power and Light is a "stand alone" electric utility and should be treated independently of Tapoco in this proceeding. The fact is that a purchase power agreement between Nantahala Power and Light and TVA has not changed what the Commission and the Courts decided in the previous two cases (E-13, Sub 29 and E-13, Sub 35). These cases found that: (1) The Nantahala and Tapoco electric facilities constitute a single, integrated electric system and (2) for purpose of setting rates the Nantahala and Tapoco systems should be treated as one entity with respect to all matters affecting the determination of Nantahala's reasonable cost of

service applicable to its North Carolina operations and (3) the roll-in methodology was the most appropriate for use in making jurisdictional cost and service allocations.

In its opinion, *Utilities Commission v. Edmisten*, 299 N.C. 432, the Supreme Court concluded that the Nantahala-Tapoco electrical system is a single system:

> "In light of the foregoing, we cannot agree with the Commission that the evidence is insufficient to warrant the treatment of Nantahala and Tapoco as a single system for rate making purposes. The 'roll-in' device, or technique, for rate making computation seems especially appropriate in a case such as this where one physically integrated system interconnected in such a way that all power available to the system can be used to enhance its overall reliability and supply its requirements as a whole, is presided over by two corporate entities (See, e.g., *Central Kansas Power Co. v. State Corporation Commission*, 221 Kan. 505, 561 P. 2d 779 (1977)). This is especially true when both corporate entities are wholly owned by a parent corporation which benefits from the power generated by the system. This device does nothing more than recognize that the two corporate entities ought, for rate making accounting purposes, be treated as the one electrical power producing and distribution system which, in fact, they are. If the then unlawful preferences are indeed accorded to Alcoa to the detriment of Nantahala's customers because of the separate corporate structures and the intercorporate apportionment agreements, this rate making device would seem to eliminate them . . . "

The Court in that opinion recognized that the separate corporate structure of Alcoa, Nantahala Power and Light and Tapoco and the intercorporate apportionment agreements were inequitable to retail customers, only because both Nantahala and Tapoco ought, for rate-making accounting purposes, be treated as one electrical system. The Fontana and apportionment agreements, were only mechanisms in a power supply

arrangement that allocated the total hydro resources of the Alcoa system to Alcoa's private use and to the public load of Nantahala Power and Light. The Commission found this arrangement to conceal benefits that should have been flowing to the public load; that unlawful preferences were indeed accorded to Alcoa to the detriment of Nantahala's customers.

Principally, the *only* change that has occurred since E-13, Sub 35 that the majority relies on for their "stand alone" decision is the new purchase power contract. But, again, this is only a *mechanism* to allocate hydro resources of the total Alcoa electric system to Alcoa's private use and the public load of Nantahala. Because one allocation mechanism, albeit an inequitable one, has been replaced with another does not in itself mean that equity has prevailed. On its face the new interconnection purchase power agreement with TVA appears to be a good contract until the real test of allocation of power resources is applied.

Alcoa has not put the interest of the public load on an equal basis with its own interest in aluminum production with respect to the hydro-electric resources of Tapoco as well as Nantahala Power and Light. Alcoa is attempting to isolate Nantahala Power and Light and its public load and retain the hydro-electric resources of Tapoco solely for its aluminum operation in Tennessee. The following data represents the hydro capabilities on the *Alcoa system*:

Dependable capacity for NP&L 11 projects	85.4 MW
Dependable capacity for Tapoco projects	302.8 MW
Less Reserves at 3%	11.3 MW
New firm capacity available to meet the load	376.9 MW

Under the new purchase power contract Nantahala Power and Light is allocated 22.7% of the hydro resources, which also are the smaller and more expensive developments, while

Alcoa took, through its other subsidiary Tapoco, generation from the larger and less expensive projects. This is just another episode in this history of discriminatory treatment of the public load of Alcoa which could have been stopped by *this* Commission through the use of the roll-in methodology in this proceeding.

The preceding facts and conclusions are those we have come to after long and hard study. The facts have not changed insofar as the interrelationship of Alcoa, Tapoco and Nantahala are concerned. We, therefore, find it exceedingly difficult to accept the fact that a "roll-in" of all the power producers in the Nantahala system is not still an appropriate rate-making device to protect Nantahala's ratepayers from exessive [sic] rates. The effect of a simple change in the power supply agreements with TVA does not in any way alter the interrelationship of the three corporations in the "Alcoa System". The full Commission has already taken a stand that Nantahala receives less power than it deserves by bringing a 202B Action at the Federal Energy Regulatory Commission. We find it inconsistent that the Commission can on the one hand pursue a fairer distribution of the Alcoa System power to Nantahala at the Federal Energy Regulatory Commission and at the same time deny the roll-in device which allocates a fairer share of the power of the Alcoa System to Nantahala in a North Carolina jurisdictional rate case.

/s/ SARAH LINDSAY TATE
Sarah Lindsay Tate, *Commissioner*

/s/ DOUGLAS P. LEARY
Douglas P. Leary, *Commissioner*

APPENDIX E

Opinion of The North Carolina Utilities Commission, dated December 22, 1983

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-13, SUB 44

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of

Application of Nantahala Power and Light Company for Authority to Adjust and Increase Its Electric Rates and Charges

ORDER GRANTING PARTIAL RATE INCREASE

(issued 22 December 1983)

HEARD IN:

Swain County Courthouse, Bryson City, North Carolina, on September 27, 1983, and the Commission Hearing Room, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina 27602, on September 29 and 30, 1983 and October 3, 4, 5, 6, 17 and 18, 1983

BEFORE:

Commissioner Edward B. Hipp, Presiding; and Commissioners Leigh H. Hammond and Ruth E. Cook

APPEARANCES:

For Nantahala Power and Light Company:

Robert C. Howison, Jr., James E. Tucker, Edward Finley, Jr., and Darla B. Tarletz, Hunton and Williams, Attorneys at Law, P. O. Box 109, Raleigh, North Carolina 27602

For Aluminum Company of America and Tapoco, Inc.:

Ronald D. Jones, David R. Poe and Dennis P. Harkawik, LeBoeuf, Lamb, Leiby and McRae, Attorneys at Law, 336 Fayetteville Street, 7th Floor, Raleigh, North Carolina 27602

For the Attorney General:

Richard L. Griffin, Assistant Attorney General, and JoAnne Sanford, Special Deputy Attorney General, North Carolina Department of Justice, P. O. Box 629, Raleigh, North Carolina 27602

For: The Using and Consuming Public

For the Public Staff:

James D. Little, Chief Counsel, and Thomas K. Austin, Staff Attorney, Public Staff - North Carolina Utilities Commission, P. O. Box 991, Raleigh, North Carolina 27602

For: The Using and Consuming Public

For the Intervenors:

William Crisp and Robert F. Page, Crisp, Davis, Schwentker and Page, Attorneys at Law, P. O. Box 751, Raleigh, North Carolina 27602

For: Counties of Cherokee, Graham, Jackson, Macon and Swain; Towns of Andrews, Bryson City, Dillsboro, Robbinsville and Sylva; Tribal Council of Eastern Band of Cherokee Indians; and Henry J. Truett, Howard Paton, Veronica Nicholas, O. W. Hooper, Jr., and Alvin E. Smith

David H. Permar, Hatch, Little, Bunn, Jones, Few and Berry, Attorneys at Law, P. O. Box 527, Raleigh, North Carolina 27608

For: Jackson Paper Manufacturing Company

BY THE COMMISSION: On February 1, 1983, Nantahala Power and Light Company (Applicant, Company or Nantahala) filed an application with the North Carolina Utilities Commission seeking to increase its rates and charges for retail electric service in North Carolina effective March 4, 1983. The application proposed an annual increase in gross annual revenues of the Company of approximately 6.9%.

On February 7, 1983, the Attorney General of the State of North Carolina filed a Notice of Intervention in the case on behalf of the using and consuming public.

On February 16, 1983, the Public Staff filed Notice of Intervention on behalf of the using and consuming public.

On February 21, 1983, Jackson Paper Manufacturing Company filed petition to intervene. By Order issued February 23, 1983, the Commission allowed the intervention of Jackson Paper Manufacturing Company.

On March 1, 1983, the Commission issued an Order suspending the Applicant's proposed rates.

On March 1, 1983, a petition for leave to intervene was filed on behalf of the Counties of Cherokee, Graham, Jackson and Swain; the Towns of Andrews, Bryson City, Dillsboro, Robbinsville and Sylva; and by the Tribal Council of the Eastern Band of Cherokee Indians; and by Henry J. Truett, Howard Paton, Veronica Nicholas, O. W. Hooper, Jr. and Alvin E. Smith. On July 19, 1983, said petition was amended to include the County of Macon. The Commission issued an Order allowing the original petition to intervene on March 10, 1983, and issued an Order allowing the intervention of the County of Macon on August 9, 1983.

On April 22, 1983, the Commission issued an Order which scheduled hearings on the application with hearings to be held in the service area in Bryson City on September 27, 1983, and to resume in Raleigh on September 29, 1983.

On August 9, 1983, the Commission issued an Order which joined Aluminum Company of America (Alcoa) and Tapoco, Inc. (Tapoco) as parties.

Other motions, pleadings and Commission Orders filed in this docket may be found in the official file in this matter. The application came on for hearing at the places and times as ordered by the Commission. All parties were present and represented by counsel.

At the hearing held in Bryson City on September 27, 1983, nine members of the public testified. The resumed proceedings came on for hearing in Raleigh as scheduled.

Nantahala offered the testimony of the following witnesses: N. Edward Tucker, Jr., Vice President-Finance and Treasurer of Nantahala; Joseph F. Brennan, President of Associated Utility Services, Inc.; Stuart G. McDaniel, Senior Vice President of Associated Utility Services, Inc.; John K. Carson, Manager-Client Services, for Ebasco Business Consulting Company; and Dale M. Keith, Project Manager-Black and Veatch, Engineers/Architects.

Testifying on behalf of the Intervenors Public Staff, Attorney General and County of Cherokee, et al were: Dr. Robert Weiss, Director of the Economic Research Division of the Public Staff; Benjamin Turner, Engineer-Electric Division of the Public Staff; Candace Paton, Staff Accountant-Accounting Division of the Public Staff; David A. Springs, Senior Vice President of Southern Engineering Company; and J. Bertram Solomon of Southern Engineering Company.

Testifying for Intervenor Jackson Paper Manufacturing Company were Richard J. Rudden, President of R. J. Rudden Associates, Inc., and Donald L. Alexander of Dixie Container Corporation.

The following witnesses testified on behalf of Alcoa and Tapoco: David A. Toof, Manager in the Washington Office of the Ernst and Whinney Utility Group; John Devlin, Manager with Ernst and Whinney; and William W. Lindsay, Vice President of NPS Energy Management, Inc.

Nantahala offered the rebuttal testimony of the following witnesses: Dale Kenneth Hollister, First Vice President in the Regulated Industries Finance Department with Dean Witter Reynolds; Richard C. Crawford, Director of the Division of

Energy Use and Distribution Relations with the Tennessee Valley Authority; and Bruce A. Ainsworth, Project Civil Engineer in the Power Division of Black and Veatch.

Alcoa and Tapoco offered rebuttal testimony by Christopher Scott, President of the North Carolina AFL/CIO.

On November 29, 1983, the Commission entered a "Notice of Decision and Order" in this docket.

Based on the foregoing, the evidence adduced at the hearing and the entire record in this matter, the Commission makes the following

FINDINGS OF FACT

1. Nantahala is a duly organized public utility company under the laws of the State of North Carolina, subject to the jurisdiction of this Commission, and is holding a franchise to furnish electric power in the western part of North Carolina under rates and services regulated by this Commission as provided by Chapter 62 of the General Statutes.

2. The test period for purposes of this proceeding is the 12-month period ended December 31, 1981, adjusted for certain known changes based upon circumstances and events occurring up to the time of the close of hearings in this docket.

3. By its application, Nantahala is seeking an increase in its basic rates and charges to its North Carolina retail customers of $1,443,283.

4. The overall quality of electric service provided by Nantahala to its North Carolina retail customers is adequate.

5. Both Nantahala and Tapoco, Inc. are wholly-owned subsidiaries of Aluminum Company of America.

6. The 1962 New Fontana Agreement and the 1971 Apportionment Agreement expired by their own terms on December 31, 1982. The New Fontana Agreement was replaced by an Interconnection Agreement negotiated independently by Nantahala with the Tennessee Valley Authority (TVA). Nantahala's

entire generating capacity is from hydroelectric stations, two of which have water storage dams and nine of which are run-of-the-river generators. By controlling its water releases under the 1983 Interconnection Agreement, Nantahala can supply most of its customers' needs from its own hydroelectric generation during normal water conditions and average consumption hours and seasons. During low water and peak consumption periods, Nantahala can supplement its available generation by outside purchases of power from TVA or other suppliers at the most advantageous cost available at such times. During high water and flood seasons when consumption is low, Nantahala will have to release water from its storage when its consumers will have no use for the resulting generation, and Nantahala can then sell such surplus power to TVA at the most advantageous price available at such time, and its consumers will get full benefit of the proceeds of such sales in setting Nantahala's rates. The 1983 Interconnection Agreement between Nantahala and TVA provides substantial benefits to the Company's retail ratepayers in North Carolina which were not present under the New Fontana Agreement and the 1971 Apportionment Agreement. Changed conditions reflected in the 1983 Interconnection Agreement, which became effective January 1, 1983, include, but are not limited to, the following: Nantahala now dispatches and controls the operation of all of its hydroelectric generating facilities and retains for itself and its customers all of the Company's hydroelectric generation; Nantahala operates and dispatches said system in order to best meet its load requirements and depends upon TVA only for the purchase of its capacity and energy needs above and beyond that which the Company can generate for itself; Nantahala is assured of a firm supply of supplemental and back-up power and energy from TVA, without limitation, when the Company's own generation cannot meet its load; Nantahala is permitted to utilize, without limitation, any other source of supplemental power which may be available, including the addition of new generating capacity to the Company's system and/or purchases from other suppliers; and Nantahala can sell its excess genera-

tion to TVA. Nantahala's North Carolina retail rates should, therefore, be established in this proceeding in recognition of and pursuant to the more favorable terms and benefits of the 1983 Interconnection Agreement.

7. The New Fontana Agreement and 1971 Apportionment Agreement resulted in substantial concealed benefits accruing to Alcoa to the significant detriment of the customers of Nantahala. No direct benefits now accrue to Alcoa as a result of the 1983 Interconnection Agreement to the detriment of Nantahala's customers. Furthermore, if any indirect benefits enure to Alcoa as a result of said agreement, any such indirect benefits do not appear to be the result of unlawful preference having been shown to Alcoa by Nantahala to the significant detriment of Nantahala's customers.

8. The roll-in methodology proposed herein by the Intervenors for pro forma purposes in fixing Nantahala's rates without any accompanying order from the appropriate federal jurisdiction requiring the physical sale of Tapoco power to Nantahala or a guarantee of Nantahala's financial integrity by Alcoa will ultimately result in insolvency or bankruptcy of Nantahala and an inability of Nantahala to meet its customers' needs for electric power, and will not serve the best interests of Nantahala's customers or its service area in North Carolina. Further, if and when the federal jurisdiction having authority to allocate Tapoco power to the Nantahala service area should order such allocation, then the Commission can reopen this docket to readjust the rates of Nantahala to reflect the actual cost of such purchases from Tapoco as may be approved by said federal jurisdiction.

9. The Nantahala electric system should be treated independently of Tapoco in this proceeding with respect to all matters affecting the determination of Nantahala's reasonable cost of service applicable to its North Carolina retail operations. Under the 1983 Interconnection Agreement, Nantahala is a stand alone hydroelectric power company which operates its 11 hydroelectric generation stations for the sole benefit of its

customers, all of which are in North Carolina, without any obligation to or regard for the TVA or Tapoco hydro stations in North Carolina and Tennessee or for Alcoa's power use in Tennessee. Further, Alcoa receives no power or any other direct benefit from Nantahala's power generation. All of the benefits of the generation from Nantahala's entire hydroelectric system are retained exclusively for the use and benefit of the North Carolina customers of Nantahala, whose entire service is confined to its service area in North Carolina. Thus, the roll-in methodology advocated herein by the Intervenors and previously utilized by the Commission in prior dockets in making cost of service allocations is not appropriate for use in setting Nantahala's retail rates in this proceeding. Consequently, each finding of fact appearing in this Order which deals with a proper level of rate base, revenues, and expenses has been determined based upon Nantahala's stand-alone levels of revenues and costs.

10. Nantahala should actively and thoroughly investigate and pursue alternatives to purchasing power from TVA, including, in particular, power purchases from Tapoco, in order to secure for its retail ratepayers purchase power at the lowest possible cost.

11. Nantahala should continue to adjust its rates through use of the purchase power adjustment (PPA) clause pursuant to G.S. 62-130(d). A base unit cost of 1.132757 ¢/kwh for purchase power (excluding gross receipts tax) is appropriate for use in this proceeding, reflecting a reasonable base cost for purchase power of $6,138,500 for North Carolina retail service. The base unit cost of 1.132757 ¢/kwh for purchase power found reasonable herein shall be utilized by Nantahala in future PPA filings which are proposed to become effective subsequent to the date of this Order and until such time as a new base unit cost for purchase power is set by the Commission.

12. Inclusion of $406,209 of reasonable and prudent expenditures for construction work in progress (CWIP) in Nanta-

hala's rate base is in the public interest and is necessary to the financial stability of the Company.

13. Nantahala's net original cost of electric plant is $24,772,451, consisting of electric plant in service of $61,289,278; construction work in progress of $406,209; reduced by accumulated provision for depreciation of $33,012,528; accumulated deferred income taxes of $3,861,645; and accumulated deferred investment tax credit (pre-1971) of $48,863.

14. The reasonable allowance for working capital is $1,134,937, consisting of cash working capital of $594,010, materials and supplies of $519,025, FERC license expense of $98,243, unamortized maintenance of $144,516, less customer deposits of $220,857.

15. Nantahala's rate base is $25,907,388. This amount consists of net original cost of electric plant of $24,772,451, plus a reasonable allowance for working capital of $1,134,937.

16. The approximate gross revenues from electric operations for the test year, after accounting and pro forma adjustments, under rates in effect at the time of the application are $20,868,973 and after giving effect to the Company proposed increase, are $22,312,256 ($20,868,973 + $1,443,283).

17. The approximate level of test year operating expenses under rates in effect at the time of the application, after accounting and pro forma adjustments, including taxes and interest on customer deposits, is $18,259,159, which includes an amount of $1,863,668 for actual investment currently consumed through reasonable, actual depreciation after annualization to year-end levels.

18. The reasonable capital structure to be employed as a basis for setting rates in this proceeding is composed as follows:

Item	*Ratio*
Long-term Debt	43.9%
Common Equity	56.1%
Total	100.0%

19. The proper embedded cost of long-term debt is 8.72%. The reasonable rate of return Nantahala should be allowed to earn on common equity is 15.5%. Use of a weighted average for the cost of debt and common equity, with reference to the reasonable capital structure heretofore determined, yields an overall fair rate of return of 12.52% to be applied to the Company's original cost rate base. Such rate of return will enable Nantahala, by sound management, to produce a fair return for its shareholders, to maintain its facilities and service in accordance with the reasonable requirements of its customers, and to compete in the market for capital funds on terms which are reasonable and fair to customers and its existing investors.

20. The approximate annual level of revenue which Nantahala should be authorized to collect through rates charged for its sales of service, based upon the findings of fact set forth hereinabove, is $22,204,830. Such level of revenue reflects a required increase of $1,335,857 over the test year level of revenue ($20,868,973) which would be produced under rates in effect at the time this rate application was filed.

21. Nantahala's proposed rate design and service rules are reasonable and appropriate as modified herein.

22. Nantahala should base all residential customer billings on monthly meter readings as ordered in Docket No. E-13, Sub. 35.

23. Nantahala should list the Purchased Power Adjustment as a separate item on each billing.

24. Nantahala should undertake studies, in conjunction with the Public Staff, to determine the feasibility of time-of-

use rates, including seasonal rates, and load control of residential water heating and central air conditioning.

25. The proposed rate schedule LIS (Large Industrial Service) should not be approved in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 1, 2, 3, and 5

The evidence for these findings of fact is contained in the verified application and in the record as a whole. These findings of fact are essentially procedural and jurisdictional in nature and are not contested.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 4

Company witness Tucker and the various public witnesses who appeared at the hearings in Bryson City presented testimony concerning the quality of service. The Commission notes that the record contains little, if any, evidence which would suggest problems regarding the quality of Nantahala's service to its customers. Therefore, the Commission concludes that the quality of electric service being furnished by Nantahala to its N. C. retail customers is adequate.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 6, 7, 8, 9, and 10

Company witnesses Tucker, Carson, Keith, Crawford, and Ainsworth; Alcoa-Tapoco witnesses Toof, Devlin, and Lindsay; and Intervenor witnesses Springs and Solomon presented testimony and evidence regarding system operations, relationships between companies, contracts and agreements, cost allocation methodologies and the "roll-in" technique.

Concealed Benefits to Alcoa Flowing From 1962 New Fontana Agreement and 1971 Apportionment Agreement

In two general rate orders establishing rates for Nantahala in Docket Nos. E-13, Sub 29 (Remanded) and E-13, Sub 35 the

Commission determined that it was improper to base cost allocations on demand and energy entitlements as contained in the 1962 New Fontana Agreement and the 1971 Tapoco-Nantahala Apportionment Agreement as proposed by Nantahala. The Commission found that a number of inequities to Nantahala arising out of these agreements resulted in Alcoa receiving concealed benefits. For example, the 1971 Apportionment Agreement credited Nantahala with only 360 million kWh annually, whereas a 1963 agreement with Alcoa provided Nantahala with 360 million kWh minimum production plus Nantahala's actual production in excess of 360 million kWh. Under the 1971 agreement, Nantahala was deprived of 66 million kWh average energy production annually in comparison to the 1963 agreement with Alcoa. Since the production allowance in the TVA return entitlements was jointly shared by Nantahala and Tapoco under the 1962 New Fontana Agreement, the 66 million kWh detriment to Nantahala constituted a benefit to Tapoco that was passed on to Alcoa.

Furthermore, the 1971 apportionment agreement credited Nantahala with an assigned generating capacity of 54,300 kw whereas its actual dependable generating capacity is 81,800 kw. Since the capacity allowance in the TVA return entitlements was jointly shared by Nantahala and Tapoco under the 1962 New Fontana Agreement, any capacity needs of Nantahala between 54,300 kw and 81,800 kw represented an expense to Nantahala and, thus, a saving to Tapoco that was passed on to Alcoa as a concealed benefit.

In addition, Nantahala's loss of the right to control the storage and flow of water for Nantahala's facilities constituted a loss of considerable value for which loss Nantahala was entitled to compensation. Despite the fact that the 1962 New Fontana Agreement included in the TVA return entitlement a reimbursement by TVA for the right to operate Nantahala's projects, the 1971 Apportionment Agreement gave no credit to Nantahala for that reimbursement, and thus said reimbursement represented a savings to Tapoco that was passed on to Alcoa.

In summary, the 1962 New Fontana Agreement and 1971 Apportionment Agreement resulted in direct inequities to Nantahala and concealed benefits to Alcoa. The situation was further aggravated because the TVA return entitlements in the 1962 New Fontana Agreement were entirely designed to meet Alcoa's aluminum production needs and were not suitable for Nantahala's public service needs. Nantahala had energy production capacity and it had peaking capacity from its own generating stations, yet Nantahala gave up that energy production capacity and that peaking capacity with the result that it had to buy higher cost power from TVA to meet its peaking responsibilities and its energy production responsibilities.

Roll-In Rate-Making Technique

In *State of North Carolina ex rel. Utilities Commission v. Edmisten*, 299 N.C. 432 (1980), the North Carolina Supreme Court required the Commission to consider a roll-in method of ratemaking based upon Intervenors' assertion that such method would serve to cancel, or at least to true-up, concealed benefits which allegedly flowed to Alcoa from Nantahala and Tapoco by virtue of the 1971 agreements. The Court found that Nantahala's primary duty as a public utility is to serve its public customers. The Court stated that Nantahala should "not be allowed to structure its economic affairs or physical operations in such a way as to effect an unreasonable preference or advantage to anyone, including its parent Alcoa", and that Nantahala's customers should not be "denied the benefit of their utility's fairly regular harvests of abundant energy." *Id.* The Supreme Court remanded the Docket No. E-13, Sub 29, case to the Commission to examine the roll-in rate-making technique and stated that if any "unlawful preferences were indeed accorded to Alcoa to the detriment of Nantahala's customers because of the separate corporate structures and the inter-corporate apportionment agreements, this rate-making device would seem to eliminate them." *Id.* at 443.

The Commission subsequently utilized the roll-in rate-making technique to establish rates for Nantahala in Docket Nos.

E-13, Sub 29 (Remanded) and E-13, Sub 35. As pointed out in said rate orders, the purpose of the roll-in method of ratemaking was to cancel or at least to true-up the concealed benefits to Alcoa.

On December 6, 1983, the North Carolina Court of Appeals entered an opinion affirming the Commission Order of September 2, 1981, in Docket No. E-13, Sub 29 (Remanded) wherein the Commission utilized the roll-in methodology in setting Nantahala's rates. *State of North Carolina ex rel. Utilities Commission* v. *Nantahala Power and Light Company*, ____ N.C. App. ____ (1983).

The Intervenors urge the Commission to continue to establish Nantahala's rates through application of the roll-in ratemaking technique in this proceeding. Intervenors maintain that the new contractual arrangements between Nantahala and TVA, and between Tapoco and TVA, merely constitute a continuation of the same pattern that existed in the past. Nantahala and Alcoa, on the other hand, argue that the basis for the roll-in applied in Docket Nos. E-13, Sub 29 (Remanded) and E-13, Sub 35 no longer exists, and that under the 1983 Nantahala/TVA Interconnection Agreement, the inequities of the 1962 New Fontana Agreement and 1971 Apportionment Agreement have disappeared.

The 1983 Nantahala/TVA Interconnection Agreement

The 1962 New Fontana Agreement and the 1971 Apportionment Agreement expired by their own terms on December 31, 1982. Effective January 1, 1983, the 1962 New Fontana Agreement and the 1971 Apportionment Agreement were superseded by the 1983 Nantahala/TVA Interconnection Agreement. Under the 1983 Nantahala/TVA Interconnection Agreement, Nantahala serves its own load with the full output of its own generating facilities. Nantahala purchases supplemental and standby power from TVA when its own load exceeds its own generation, such as in the event of adverse water conditions or equipment outages. Under Nantahala's 1983 agreement with TVA, Nantahala purchases capacity at TVA's average capacity

costs, and it purchases energy at TVA's hour-by-hour, out-of-pocket energy costs excluding hydro generation. (TVA reserves the benefit of its own hydro generation for residential customers in the TVA service area.) In addition to the hour-by-hour, out-of-pocket energy costs, Nantahala must pay an adder in its energy rate. The adder is the greater of (1) the difference between TVA's projected annual energy charge (excluding hydro generation) to its wholesale customers versus its estimated out-of-pocket, hour-by-hour energy costs (excluding hydro generation); or (2) 15% of the hour-by-hour, out-of-pocket costs (excluding hydro generation). TVA's energy charge to its other wholesale customers contains substantial demand costs in addition to out-of-pocket, hour-by-hour energy costs, and the adder is designed to produce an energy charge to Nantahala comparable to TVA's energy charge to its other wholesale customers.

Intervenor witness Springs acknowledged that unlike the 1962 New Fontana Agreement and the 1971 Apportionment Agreement, the 1983 Nantahala/TVA Interconnection Agreement gives Nantahala full credit for its actual energy generated and almost full credit for its peaking capacity. Intervenors criticize the 1983 Agreement because they maintain that Nantahala is now cut away from the exchange concept, that the energy pricing concept in the 1983 Agreement is not cost-related, and that Alcoa should have bargained with TVA on Nantahala's behalf.

The Commission recognizes that an exchange agreement between Nantahala and TVA, whereby all of Nantahala's hydro generation is dispatched to TVA as it is produced, and whereby in return TVA dispatches power back to Nantahala as Nantahala needs it, would tend to levelize the need for Nantahala to purchase supplemental or standby power from TVA. The Commission is of the opinion that an exchange agreement between TVA and Nantahala would have tended to levelize the impact of increases and decreases in the cost of purchased power over time, but the net impact on rates to Nantahala's customers should be approximately the same in the long run

whether Nantahala's actual generation is exchanged with TVA or not.

Witness Springs seems to maintain that a pricing mechanism whereby Nantahala must pay TVA's average capacity costs put TVA's hour-by-hour energy costs would be harmful to Nantahala because Nantahala would then pay a share of the high capital cost of base load production plants without also getting an equal share of the low cost energy from such base load production plants. The Commission recognizes that TVA's energy charge to Nantahala is designed to approximately equal the energy charge to TVA's other wholesale customers. Nantahala's experience under the contract through the close of the hearing indicates that Nantahala's costs for electricity purchased from TVA have been lower than Alcoa's. The Commission also recognizes that pricing of the high capital cost of base load generating plants in a manner consistent with pricing of the low cost energy from such base load generating plants is a widespread concern affecting many if not most utility companies in the nation, and that such concern does not of itself demonstrate any unreasonable weakness in the Nantahala/TVA agreement.

Intervenors also maintain that Alcoa should have bargained on Nantahala's behalf and that such joint bargaining would have resulted in better terms to Nantahala. However, Intervenors have pointed to nothing in the Tapoco/TVA agreement to demonstrate that Alcoa's presence at the bargaining table resulted in a tangible improvement in the terms of the Tapoco/TVA agreement. Indeed, the client negotiator for TVA, Mr. Crawford, testified that Alcoa's presence or assistance in bargaining for Nantahala would not have affected the Nantahala/TVA agreement results.

Nantahala's entire generating capacity is from hydroelectric stations, two of which have water storage dams and nine of which are run-of-the-river generators. By controlling its water releases under the 1983 Interconnection Agreement, Nantahala can supply most of its customers' needs from its own hydroelectric generation during normal water conditions and average

consumption periods. During low water or peak consumption periods, Nantahala can supplement its available generation by outside purchases of power from TVA or other suppliers at the most advantageous cost available at such times. During high water or low consumption periods, Nantahala will have excess generation for which it will have no use, and Nantahala can then sell such surplus power to TVA or others at the most advantageous price available at such time, and its consumers will get full benefit of the proceeds of such sales in their rates.

The 1983 Interconnection Agreement between Nantahala and TVA provides substantial benefits to the Company's retail ratepayers in North Carolina which were not present under the 1962 New Fontana Agreement and the 1971 Apportionment Agreement. Changed conditions reflected in the 1983 Interconnection Agreement include, but are not limited to, the following: Nantahala now dispatches and controls the operation of all of its own hydroelectric generating facilities and retains for itself and its customers all of its own hydroelectric generation; Nantahala operates and dispatches said system in order to best meet its own load requirements and depends upon TVA only for the purchase of its capacity and energy needs above and beyond that which Nantahala can generate for itself; Nantahala is assured of a firm supply of supplemental and back-up power and energy from TVA, without limitation, when the Company's own generation cannot meet its load; Nantahala is permitted to utilize, without limitation, any other source of supplemental power which may be available, including the addition of new generating capacity to the Company's system and/or purchases from other suppliers; and Nantahala can sell its excess generation to TVA.

Under the 1983 Interconnection Agreement, Nantahala is a stand-alone hydroelectric power company which operates its 11 hydroelectric generation stations for the sole benefit of its customers in North Carolina, without any obligation to or regard for the TVA or Tapoco hydro stations in North Carolina and Tennessee or for Alcoa's power use in Tennessee. Alcoa

receives no power or any other direct benefit from Nantahala's power generation. All of the benefits of the generation from Nantahala's entire hydroelectric system are retained exclusively for the benefit of the North Carolina customers of Nantahala, whose entire service is confined to its service area in North Carolina.

The Commission concludes that the 1983 Nantahala/TVA Interconnection Agreement and the control by Nantahala of its own generation facilities is a substantial improvement over Nantahala's previous arrangements, and that the 1983 Nantahala/TVA Interconnection Agreement provides substantial benefits to the Company's retaii ratepayers in North Carolina which were not present under the 1962 New Fontana Agreement and the 1971 Apportionment Agreement.

Stand-Alone Rate-Making Technique

In Docket No. E-13, Sub 29 (Remanded) and E-13, Sub 35, this Commission found that Nantahala and Tapoco electric facilities constituted a single, integrated electric system and were operated as such by TVA as a coordinated part of the TVA system. The Commission based its finding of a single, integrated system upon the facts that Nantahala and Tapoco were wholly-owned by one corporate parent, Alcoa; that the facilities of Nantahala and Tapoco were located in contiguous areas in western North Carolina; that the Nantahala and Tapoco electric facilities were physically interconnected with each other; and that both companies were interconnected with TVA. The Commission found that power could be dispatched and transmitted from the facilities of one to the facilities of the other; and that the Original Fontana Agreement and the New Fontana Agreement treated the facilities of Nantahala and Tapoco without discrimination and made them an integral part of, and subjected them to coordination with, the TVA system. By the terms of these Agreements, TVA received the output of all of the hydro resources of both Nantahala and Tapoco, except for three small projects of Nantahala. By the terms of these Agreements, Tapoco and Nantahala also turned over to

TVA control of production and stream flow. Accordingly, TVA determined for Tapoco and Nantahala, as a single entity, both electric generation and stream flow. In turn, Tapoco and Nantahala received back from TVA certain entitlements of power which they divided between themselves in the 1971 Nantahala-Tapoco Apportionment Agreement.

The Commission reaffirms its previous findings and conclusions made in Docket Nos. E-13, Sub 29 (Remanded) and E-13, Sub 35, to the effect that the 1962 New Fontana Agreement and the 1971 Apportionment Agreement resulted in the accrual of substantial concealed benefits to Alcoa to the significant detriment of the customers of Nantahala. However, effective January 1, 1983, Nantahala entered into a separate agreement with TVA under which Nantahala retains, dispatches and controls the generation from its own hydroelectric generating plants, and under which Nantahala purchases supplemental and stand-by power from TVA. Effective January 1, 1983, Tapoco also entered into a separate agreement with TVA under which Tapoco conveys the generating output of its hydroelectric plants to TVA in return for entitlements from TVA which Tapoco uses to provide power to Alcoa in Tennessee. The execution of these new agreements with TVA substantially removes the underpinnings upon which rested the Commission's previous determinations that the roll-in methodology was appropriate.

Although the New Fontana Agreement and 1971 Apportionment Agreement undoubtedly resulted in substantial concealed benefits accruing to Alcoa to the significant detriment of the customers of Nantahala, no direct benefits now accrue to Alcoa as a result of the 1983 Interconnection Agreement to the detriment of Nantahala's customers. Furthermore, if any indirect benefits enure to Alcoa as a result of said agreement, any such indirect benefits do not appear to be the result of unlawful preference having been shown to Alcoa by Nantahala to the significant detriment of Nantahala's customers.

Under the current Nantahala/TVA contract, Nantahala controls its own generating resources, and Nantahala's customers

are assured the full economic benefit of the output of Nantahala's hydroelectric generating projects. Nantahala and Tapoco no longer share joint return entitlements from TVA. The Commission therefore concludes that Nantahala and Tapoco should be treated as separate and independent entities for rate-making purposes and that Nantahala's retail rates in North Carolina should be established in this proceeding in recognition of and pursuant to the more favorable terms and benefits of the 1983 Interconnection Agreement.

Access to Tapoco Hydro Generation

The Commission notes that one implication of the Intervenors' criticism of the new relationship created between Nantahala, Tapoco and TVA by the 1983 agreements is that Tapoco power is not available to Nantahala. In the past, Intervenors have contended that there were concealed benefits flowing from Nantahala to Alcoa, and that Nantahala-Tapoco was a single, integrated system. The roll-in technique applied by the Commission in the previous cases was used to prevent the benefits of Nantahala's generation from improperly flowing to Alcoa, and to proform Nantahala's rates as if there had been a hypothetical roll-in of the two systems. The roll-in technique did not make the benefits of Tapoco's generation available to Nantahala. Intervenors and this Commission have now requested relief before the Federal Energy Regulatory Commission (FERC), regarding the issue of access by Nantahala to Tapoco power, an issue which should properly be decided in that forum by FERC.

Thus, the Commission concludes that without any accompanying order from the appropriate federal jurisdiction requiring the physical sale of Tapoco power to Nantahala, or a guarantee of Nantahala's financial integrity by Alcoa, the roll-in methodology proposed herein by the Intervenors for fixing Nantahala's rates will ultimately result in insolvency or bankruptcy of Nantahala and an inability of Nantahala to meet its customers' needs for electric power, and will not serve the best interests of Nantahala's customers or its service area in

North Carolina. Further, if and when the federal jurisdiction having authority to order the sale of Tapoco power to Nantahala should order such sale, then the Commission can reopen this docket to readjust the rates of Nantahala to reflect the actual cost of such purchases from Tapoco.

Notwithstanding the fact that the 1983 Interconnection Agreement between Nantahala and TVA provides substantial benefits to the Company's retail ratepayers in North Carolina which were not present under the 1962 New Fontana Agreement and the 1971 Apportionment Agreement, the Commission concludes that Nantahala should actively and thoroughly investigate and pursue alternatives to purchasing power from TVA, including, in particular, power purchases from Tapoco, in order to secure for its retail ratepayers purchase power at the lowest possible cost.

In reaching all of the conclusions set forth hereinabove in support of Findings of Fact Nos. 6, 7, 8, 9, and 10, the Commission has carefully reviewed and considered the holding of the North Carolina Supreme Court in *State of North Carolina ex rel. Utilities Commission* v. *Edmisten*, supra, the recent holding of the North Carolina Court of Appeals in *State of North Carolina ex rel. Utilities Commission* v. *Nantahala Power and Light Company*, supra, the findings of fact and conclusions heretofore reached by the Commission in Docket Nos. E-13, Sub 29 (Remanded) and E-13, Sub 35, regarding utilization of the roll-in methodology, and the entire record in this docket.

Evidence and Conclusions For Finding of Fact No. 11

Company witnesses McDaniel and Carson and Public Staff witness Paton presented testimony and evidence regarding the purchase power adjustment clause.

Nantahala's rates have, for many years, contained a purchase power adjustment clause as an adjunct to its base rates. Under Nantahala's purchase power adjustment clause, rates are adjusted each month based upon a rolling average of

purchase power expense for a prior three-month period. Since 1971, the output from Nantahala's hydroelectric generating resources has been insufficient to serve the complete needs of its customers, and Nantahala has purchased its stand-by and supplemental needs from TVA. Nantahala's monthly purchase power adjustments occur after filing and consideration of Nantahala's request by the Commission. Nantahala has never filed its requests to adjust purchase power expenses in accordance with G.S. 62-134(e), and the nature of its needs could not have been met by use of this statute. Under its 1983 contract with TVA, Nantahala dispatches and controls its own generation. Under the 1962 New Fontana Agreement and the 1971 Apportionment Agreement, Nantahala received a levelized entitlement each month based upon estimated average stream conditions and purchased its needs in excess of said entitlement from TVA. Therefore, Nantahala's current purchase power costs are more likely to fluctuate as a result of water conditions, extreme weather and equipment unavailability than in the past. Nantahala's purchase power adjustment clause allows Nantahala to recover expeditiously increases in purchase power expense, and likewise allows Nantahala to expeditiously pass on reductions in purchase power expense to its customers.

North Carolina G.S. 62-130(d) states that: "The Commission shall from time-to-time as often as circumstances may require, change and revise or cause to be changed or revised any rates fixed by the Commission, or allowed to be changed by any public utility." Pursuant to the authority of this statutory provision, the Commission is of the opinion that it is appropriate for Nantahala to continue to adjust its rates through changes in the purchase power adjustment clause. In *State of North Carolina ex rel. Utilities Commission* v. *Edmisten*, 291 N.C. 327, 230 S.E.2d 651 (1976), the North Carolina Supreme Court authorized use of a Commission-approved automatic fuel adjustment clause pursuant to G.S. 62-130. The Court noted that instead of approving fixed monetary rates for electric service, the Commission may approve rates expressed

as a formula which will vary with changes in the different elements that make up the formula.

The Commission finds that based on the above authority, Nantahala's purchase power adjustment clause is in all respects proper and approves same for use as an adjunct to the base rates approved herein.

Further, the Commission finds and concludes that the base unit cost of 1.132757¢/kWh, as advocated by Nantahala witness Carson, is proper for use with respect to the Company's future filings relating to the purchase power adjustment clause.

Evidence and Conclusions For Findings of Fact Nos. 12, 13, 14, and 15

The Commission has previously concluded that it is inappropriate to use the roll-in technique in setting rates in this proceeding; therefore, in discussing the differences in rate base, revenues and expenses between the Company and the Intervenors in this and later sections of this Order, these differences will be based upon the Nantahala stand-alone methodology. There will be no further discussion of the differences between the parties arising solely from the use of the roll-in methodology.

The evidence for these findings of fact is found in the testimony and exhibits of Company witnesses McDaniel and Tucker, Public Staff witness Paton, and Intervenor witness Solomon.

The total difference between the parties under the stand-alone approach with respect to rate base totals $406,209, and results from the exclusion of construction work in progress (CWIP) from Nantahala's rate base by the Public Staff. Nantahala included in rate base current investment in CWIP added subsequent to December 31, 1979. Nantahala witness McDaniel testified that inclusion of CWIP is consistent with and in the public interest and necessary to the financial stability of Nantahala. Witness McDaniel testified that it is appropriate to include CWIP in rate base because of the increased demand for electric service by present customers.

Although customer costs are higher during the construction period of the project when CWIP is included in rate base, electric rates overall will be much less. The capitalized financing charges (AFUDC) that accrue during the construction period when CWIP is not included in rate base result in a significantly higher rate base when the plant becomes used and useful. This causes the customers to pay more return, greater depreciation expense and greater income tax on the additional earnings. Property taxes also increase, and the ability to utilize investment tax credit carry forwards and operating losses on a timely basis is diminished. Inclusion of CWIP in rate base prevents the sudden, precipitous increases in rates that occur when large construction projects become eligible for inclusion in rate base at completion. Customers, especially those who must accurately budget their future expenses, should prefer the gradual, orderly increase in rates that inclusion of CWIP in rate base allows. Inclusion of CWIP is necessary to Nantahala's financial stability. Inclusion of CWIP in rate base, in addition to increasing internal cash generation, improves fixed charge coverages needed to support the issuance of securities.

Public Staff witness Weiss testified that CWIP should not be included in rate base. Dr. Weiss testified that the CWIP issue is most relevant for electric utilities with heavy construction schedules and long lead times. For companies such as Nantahala with small construction projects that are completed quickly, the investors are capable of advancing the necessary funds without assistance from the ratepaypers; that financial stability of Nantahala is essentially unaffected by the treatment of CWIP, which represents less than 2% of rate base; that pre-tax interest coverage is more than adequate at approximately 5.0 times and that this coverage is well into the AAA bond rating range according to Standard & Poor's.

The Commission notes that in light of the controversy that has existed since 1979 concerning the manner in which Nantahala's rates should be established, Nantahala has been unable to raise outside capital on any terms. Likewise, Nantahala has paid no dividends since early in 1979. The Commission believes

it is essential that Nantahala improve and maintain its financial integrity. Inclusion of CWIP in rate base is one facet of the program adopted by the Commission in this Order that will enhance Nantahala's ability to raise the necessary capital on reasonable terms it needs in order to meet its customers' demand for electric energy.

Based upon the evidence presented on this issue, the Commission concludes that $406,209 of reasonable and prudent expenditures for construction work in progress should be included in Nantahala's rate base and that inclusion thereof is in the public interest and necessary to the financial stability of the Company.

Further, the Commission concludes that the proper rate base for use in this proceeding is $25,907,388.

Evidence and Conclusions For Findings of Fact Nos. 16 and 17

With respect to the test year level of operating revenue and operating revenue deductions, the differences between the parties arise, in all material respects, as a result of the use of different allocation techniques.

The Commission has previously adopted the allocation techniques employed by Nantahala for use herein. The Commission therefore concludes that the proper level of operating revenues, under rates in effect at the time of application, to be used in this proceeding is $20,868,973. Such sum is summarized as follows:

Item	*Amount*
Operating Revenues	
Sales of electricity	$20,623,491
Other operating revenues	245,482
Total Operating Revenues....	$20,868,973

The following chart summarizes the level of operating revenue deductions, under rates in effect at the time of application, that the Commission concludes is appropriate for use herein.

Operating Expenses	*Amount*
Purchased power expenses ...	$ 6,138,500
Other operations & maintenance.....	7,151,238
Depreciation and amortization	1,863,668
Taxes—Other than income ...	1,720,108
Income taxes:	
State.....	183,158
Federal.....	1,083,062
Income taxes deferred in prior years.....	(78,960)
Investment tax credits normalized.....	275,566
Amortization of investment tax credit	(77,181)
Total Operating Expenses.....	$18,259,159

With respect to the proper level of income tax expense included above there is one matter which must be addressed. This matter concerns the propriety of imputing interest to a portion of funds arising from utilization of the Job Development Investment Tax Credit (JDITC).

In numerous rate proceedings before the Commission, the Public Staff has steadfastly maintained that the Revenue Act of 1971, which implemented the JDITC, permits the Commission to impute interest thereto for use in determining the test year level of federal income tax expense. Notwithstanding that, the Commission had consistently found, for reasons which need not be repeated here, that the Public Staff's position in this regard was and is incorrect in its entirety. The North Carolina Court of Appeals in *Utilities Commission* v. *Carolina Telephone*, 61 N.C. App. 42 (1983), affirmed the Commission findings in this regard, this matter having been appealed by the Public Staff. In the words of the Court:

> "The issue on appeal, as stated by the Public Staff in its brief, 'is whether the Commission erred as a matter of law

> in concluding that Section 46(f)(2) of the Internal Revenue Code requires that all effects of JDITC should be excluded from the determination of interest expense.'

G.S. 62-94 sets forth the standard of judicial review of orders of the Utilities Commission and includes the following:

. . .

> In this appeal we are called upon to interpret the applicable sections of the Internal Revenue Code to determine whether the Commission's order is affected by errors of law. We conclude that the order is not so affected.

Section 46(f)(2) of Title 26 of the Internal Revenue Code provides that JDITC will be disallowed with regard to public utility property in the following two circumstances.

> (A) Cost of service reduction.—If the taxpayer's cost of service for ratemaking purposes or in its regulated books of account is reduced by more than a ratable portion of the credit allowable by section 38 (determined without regard to this subsection), or
>
> (B) Rate base reduction.—'f the base to which the taxpayer's rate of return for ratemaking purposes is applied is reduced by reason of any portion of the credit allowable by section 38 (determined without regard to this subsection).

The term 'ratable portion' is explained in Section 46(f)(2):

> For purposes of determining . . . ratable portions under paragraph (2)(A), the period of time used in computing depreciation expense for purposes of reflecting operating results in the taxpayer's regulated books of account shall be used.

The following example of 'ratable portion' appears in Section 1.46-6(g)(2) of the Treasury Regulations:

> (I)f cost of service is reduced annually by an amount computed by applying a composite annual percentage rate

to the amount of the credit, cost of service is reduced by a ratable portion.

The Internal Revenue Service has published the following regulations implementing Section 46(f)(2):

> (2) Cost of service. (i) For purposes of this section, 'cost of service' is the amount required by a taxpayer to provide regulated goods or services. Cost of service includes operating expenses . . . maintenance expenses, depreciation expenses, tax expenses, and interest expenses . . .
>
> (ii) In determining whether, or to what extent, a credit has been used to reduce cost of service, reference shall be made to any accounting treatment that affects cost of service. Examples of such treatment include reducing by all or a portion of the credit amount of Federal income tax expense taken into account for ratemaking purposes and reducing the depreciable bases of property by all or a portion of the credit for ratemaking purposes.
>
> (3) Rate base. (i) For purposes of this section, 'rate base' is the monetary amount that is multiplied by a rate of return to determine the permitted return on investment.
>
> (ii) In determining whether, or to what extent, a credit has been used to reduce rate base, reference shall be made to any accounting treatment that affects rate base. In addition, in those cases in which the rate of return is based on the taxpayer's cost of capital, reference shall be made to any accounting treatment that affects the permitted return on investment by treating the credit in any way other than as though it were capital supplied by common shareholders to which a 'cost of capital' rate is assigned that is not less than the taxpayer's overall cost of capital rate (determined without regard to the credit). What is the overall cost of capital rate

> depends upon the practice of the regulatory body. Thus, for example, an overall cost of capital rate may be a rate determined on the basis of an average, or weighted average, of the costs of capital provided by common shareholders, preferred shareholders, and creditors.

Treas. Reg. 1.46-6(2)(i), (ii) and (3)(i), (ii) (1979).

Essentially, Section 46(f)(2) and the regulation provided that a utility remains eligible for the credit as long as cost of service is reduced by no more than 'a ratable portion of the credit,' and as long as no reduction is made in the rate base. The purpose of this scheme, as revealed by legislative history, is to permit the benefits of the credit to be shared by the consumers and the investors of the utility. H.R. Rep. No. 533, 92d Cong., 1st Sess., *reprinted in* U.S. Code Cong. & Ad. News 1825, 1839 (1971).

Pursuant to paragraph (A) of Section 46(f)(2), CT&T 'flows through' directly to its customers an annual percentage of JDITC based upon the useful life of the property producing the credit and thereby reduces its tax expense, and thus its cost of service, by a ratable portion of the credit. This treatment of JDITC by CT&T is not at issue in the present case.

Pursuant to paragraph (B) of Section 46(f)(2), CT&T makes no reduction in its rate base on account of the credit and assigns the overall cost of capital rate to the capital generated by the credit.

The Public Staff advocates an additional adjustment due to the presence of JDITC. Assuming that, in the absence of JDITC, the capital otherwise supplied by JDITC would be contributed by all capital suppliers, including debt, in the same ratios as those suppliers exist in CT&T's capital structure, the Public Staff maintains that a hypothetical interest expense attributable to that portion of JDITC which would have been provided by debt, in the absence of JDITC, should be deducted from CT&T's income tax expense for ratemaking purposes, in addition to the ratable reduction in taxes already produced by amortization of the credit. The Public Staff

asserts that this adjustment to income tax expense for ratemaking purposes is in accord with Section 46(f)(2) based upon the language in Treas. Reg. Section 1.46-6(b)(3)(ii) that JDITC be 'assigned a "cost of capital" rate that is not less than the taxpayer's overall cost of capital rate (determined without regard to the credit)'. The Public Staff also maintains that its position has been upheld in three federal court decisions and is therefore the correct one. Finally, the Public Staff contends that the ratepayers are entitled to an additional benefit from the proposed imputed interest on JDITC because they are the source of the cost-free capital provide by JDITC. We reject each of these arguments.

The Public Staff's interpretation of the pertinent regulation completely ignores the words which precede the phrase relied upon by the Public Staff. The regulation clearly states that, to determine whether an improper reduction in rate base has occurred, reference should be made to any accounting treatment which treats JDITC 'in any way other than as though it were capital supplied by common stockholders . . .' The phrase relied upon by the Public Staff refers to the determination of the 'overall cost of capital rate' which must be applied to JDITC under the regulation. As such, the phrase deals with the rate of return which the utility is entitled to receive on JDITC, but does not require that a utility's interest expense be calculated without regard to the credit (i.e., as though capital generated by JDITC were supplied by other sources of capital reflected in the utility's capital structure). Rather, the preceding phrase strongly indicates that in other instances, JDITC is to be treated as 'capital supplied by common shareholders.' The imputation of interest to a portion of JDITC as though supplied by creditors does not treat that portion of JDITC as though supplied by common shareholders and, in addition, reduces the cost of service by more than a 'ratable portion' of JDITC. For these reasons, the adjustment proposed by the Public Staff contravene Section 46(f)(2) and the regulation thereunder.

The cases cited by the Public Staff do not persuade us to interpret Section 46(f)(2) otherwise because each of the cases

completely ignores the clear requirement in the regulation to that Section that JDITC be treated as 'capital supplied by common shareholders.'

In the case of *Public Service Company of New Mexico* v. *Federal Energy Regulatory Commission*, 653 F.2d 681 (D.C. Cir. 1981), the main issue before the court was whether capital provided by JDITC should receive the overall or common equity rate of return. The court concluded that, for purposes of determining the overall rate of return, JDITC could be treated as capital supplied by all capital suppliers in the same proportion as those suppliers existed in the capital structure of the utility, absent the credit. The court further held that excluding JDITC from the capital structure of the utility did not alter the debt/equity ratio such that the utility's interest expense deduction was increased, resulting in an additional, impermissible reduction in cost of service. No issue of imputing interest to JDITC was before the court.

That issue was before the court in *New England Power Company* v. *Federal Energy Regulatory Commission*, 668 F.2d 1327 (D.C. Cir. 1981), *cert. denied*, ____ U.S. ____, 102 S. Ct. 2928 (1982). However, in determining that the Federal Energy Regulatory Commission could require the utility to impute hypothetical interest to JDITC, the court relied on its earlier decision in *Public Service Company of New Mexico*, *supra*. Upon stating that, '(t)he question in this section is whether FERC may properly treat tax credit funds in relation to interest deduction in the same way it treats tax credit funds in relation to rate of return determination,' the court quoted that portion of its earlier opinion in which it had approved the Federal Energy Regulatory Commission's treatment of JDITC as capital supplied by all capital suppliers in a proportionate manner *for purposes of determining the overall rate of return on capital*. As we have previously stated, the questions of how to treat JDITC for purposes of determining interest expense for rate making purposes are separate issues. The court in *New England Power Company* did not treat them as such and failed to analyze in any way the tax laws or the arguments supporting the impermissible nature of the adjustment.

In *Union Electric Company* v. *Federal Energy Regulatory Commission*, 688 F. 2d 389 (8th Cir. 1981), the third case cited by the Public Staff, the court again relied upon that portion of the regulation under Section 46(f)(2) which permits a ratemaking agency to assign the 'overall cost of capital rate (determined without regard to credit)' to JDITC and ignored the remainder of the regulation. Reasoning that because the regulation allows JDITC to be 'treated like other capital' in one instance, the court concluded that the regulation should be interpreted to allow such treatment on the interest deduction issue as well. In our opinion, such reasoning contravenes the clear requirement of Section 46(f)(2)(A) that only a 'ratable portion' of JDITC be flowed through to customers and of Treas. Reg. Section 1.46(b)(3)(ii) that JDITC be treated as 'capital supplied by common shareholders,' and we decline to follow it.

The final argument advanced by the Public Staff in support of imputing hypothetical interest to JDITC is that ratepayers are entitled to the additional benefit that would enure to them as a result of imputing interest to a portion of JDITC because they supplied the capital produced by JDITC by paying rates computed without regard to the tax credit (other than the ratable portion flowed through to them). The Commission disagrees. Without regard to the credit, a utility owes a certain amount of taxes at the end of its tax year upon which its rates are based. The credit essentially forgives or returns to the utility a portion of the taxes owed by it if certain capital assets have been purchased during the tax year. As such, the capital generated by JDITC comes from the Treasury of the United States, not the ratepayers of the qualifying utility.

Based upon the express language of Section 46(f)(2) and the regulation thereunder, as well as a consideration of the history and purpose of JDITC, that being primarily to benefit the utility so as to stimulate investment and thereby increase employment and additionally to share a ratable poriton of the credit with ratepayers, we affirm the decision of the Commission to exclude all imputed interest expense related to JDITC

in determining CT&T's income tax expense for rate making purposes."

Based on the foregoing, including the reasoning set forth in past Commission decisions, the Commission finds and concludes that no interest expense should be imputed to funds arising from utilization of JDITC.

Evidence and Conclusions For Findings of Fact Nos. 18 and 19

Two witnesses were presented in the area of cost of capital and fair rate of return. The Company offered the testimony of Joseph F. Brennan, President of Associated Utility Services, a utility consulting firm. The Public Staff offered the testimony of Dr. Robert Weiss, Director of the Economic Research Division.

Witness Brennan recommended an overall return of 12.81%. This was based on a 16% return on common equity and Nantahala's actual capital structure and embedded cost rates as of December 31, 1982. Witness Brennan testified that the capital structure ratios for the Company as of that date were 43.9% long-term debt, with an embedded cost of 8.72% and 56.1% common equity.

In his testimony, witness Brennan cited what he described as "unusual circumstances" relating to Nantahala. First were the Orders by this Commission and the Federal Energy Regulatory Commission under which refunds would be payable to the customers of Nantahala. Witness Brennan compared the total of these refunds, which he found to be approximately $37.5 million, with the Company's total capitalization of $26.2 million at the end of 1982 and stated that "it is obvious that the prospective risk to which capital is exposed when invested in Nantahala is possibly infinite under these circumstances."

Witness Brennan also made reference to the Company's new agreement with TVA which replaces the New Fontana Agreement and under which Nantahala will dispatch its own system and purchase additional energy from TVA.

Finally, witness Brennan stated that Nantahala needs to spend at least $2.5 million constructing additional transmission facilities so as to assure service to its existing customers over time and about $3 million annually to provide service to new customers. Witness Brennan also stated that Nantahala is in no position to attract capital in the marketplace and must rely on internally generated funds which are insufficient to supply all of its requirements.

Witness Brennan stated that the risk of an investment is significantly increased when the "unusual circumstances" are taken into account but that it is impossible to calculate the added risk. Witness Brennan's opinion as to the cost of equity capital to Nantahala was based on the assumption that Nantahala would be freed of its refund obligations and that its rates would be determined as a stand-alone company.

Witness Brennan reached his conclusion that the cost of equity capital to Nantahala is 16.0% by giving equal weight to a discounted cash flow analysis (DCF) and a risk spread analysis. Because Nantahala stock is not traded, and thus its market price is not known, witness Brennan used two groups of companies he considered comparable. The first group was five eastern utilities which can be considered primarily hydroelectric and the second was the two major North Carolina electric utilities, Duke Power Company and Carolina Power & Light Company. Witness Brennan noted that all of his comparable companies were substantially larger than Nantahala.

For his five company barometer group, witness Brennan obtained a discounted cash flow result of 15.8% and risk spread result of 16.5%. For the two North Carolina utilities, witness Brennan's discounted cash flow result was 15% and his risk spread result was 17%. Witness Brennan's recommendation of 16% for Nantahala is essentially an average of these four numbers.

Dr. Weiss of the Public Staff accepted the capital structure and embedded cost rate for debt proposed by witness Brennan but recommended a return on equity of 15% and an overall return on rate base of 12.24%. Dr. Weiss first determined the

expected return of a diversified portfolio of equities, specifically the S&P 500. Using discounted cash flow and risk premium techniques, he estimated the expected return for the S&P 500 as 15%-16%. Dr. Weiss then compared the risk of the electric utility industry to the risk of the S&P 500 using several measures-Value Line Safety Rank, Standard & Poor's Stock Rating, and Beta (as reported by Value Line). Dr. Weiss concluded that these risk measures showed that electric utilities on average were less risky than the S&P 500 and therefore their expected return is lower than the 15%-16% he found for the S&P 500. Taking the current level of interest rates into account, he concluded that 15% is a reasonable estimate of the cost of equity to an average electric utility and that a company with Nantahala's characteristics should not have a cost of equity higher than average.

Dr. Weiss stated that currently Nantahala's cost of capital would be high because its rates and refund obligations are uncertain, pending actions by the courts. However, he said that this aspect of the Company's cost of capital should not be recognized in setting rates as it would be the equivalent of allowing any refunds as an expense item in the next rate case. Dr. Weiss stated, on cross examination:

> "If we were to give an added return to reflect these uncertainties, that would necessarily be paid by the ratepayer and if these refund obligations came to pass, it's because the ratepayer was being overcharged for a number of years . . ."

With respect to the components making up the overall rate of return to be allowed in this case, the parties were in agreement on most issues, including the appropriate capital structure and the embedded cost of debt. With respect to the cost of equity, the difference between the witnesses was small, only one percentage point.

The determination of the appropriate fair rate of return for the Company is of great importance and must be made with great care because whatever return is allowed will have an

immediate impact on the Company, its stockholders, and its customers. In the final analysis the determination of a fair rate of return must be made by this Commission, using its own impartial judgment, and guided by the testimony of expert witnesses, and other evidence of record. Whatever return is allowed must balance the interests of the ratepayers and investors, and meet the test set forth in G.S. 62-133(b)(4):

> "Fix such rate of return . . . as will enable the public utility by sound management to produce a fair return for its shareholders, considering changing economic conditions and other factors, as they then exist, to maintain its facilities and services in accordance with the reasonable requirements of its customers in the territory covered by its franchise, and to compete in the market for capital funds on terms which are reasonable and which are fair to its customers and to its existing investors."

The return allowed must not burden ratepayers any more than is necessary for the utility to continue to provide adequate service. The North Carolina Supreme Court has stated that the history of G.S. 62-133(b):

> " . . . supports the inference that the Legislature intended for the Commission to fix rates as low as may be reasonably consistent with the requirements of the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States . . ." *State ex rel. Utilities Commission* v. *Duke Power Company*, 285 N.C. 377, 206 S.E.2d 269 (1974).

The nature of the evidence in a case such as this makes it extremely difficult to balance all of the opposing interests, since much, if not all, of the evidence is based on individual witnesses' perceptions, and interpretations of trends and data from the capital markets. The Commission has considered carefully all of the relevant evidence presented, with the constant reminder that whatever return is allowed will have an immediate impact on the Company, its stockholders, and its

customers. The Commission must use its impartial judgment to ensure that all the parties involved are treated fairly and equitably. In coming to a final decision on this matter, the Commission is not unmindful of the upward pressure on capital costs generally present in the economy over recent years. The Commission is also aware of the recent downward trend in interest and other capital costs.

Based upon the foregoing and the entire record in this docket, the Commission finds and concludes that the fair rate of return that Nantahala should have the opportunity to earn on the original cost of its rate base is 12.52%. Such fair rate of return will yield a fair return on common equity of 15.50%, after payment of interest obligations.

The Commission cannot guarantee that the Company will, in fact, achieve the level of returns herein found to be just and reasonable. Indeed, the Commission would not guarantee it if it could. Such a guarantee would remove necessary incentives for the Company to achieve the utmost in operational and managerial efficiency. The Commission believes, and thus concludes, that the level of return approved herein will afford the Company a reasonable opportunity to earn a reasonable return for its stockholders while providing adequate and economical service to ratepayers.

Evidence and Conclusions For Finding of Fact No. 20

Based upon the findings of fact set forth hereinabove, the Commission concludes that the appropriate annual level of revenues which Nantahala should be authorized to collect through rates charged for its sales of service based upon the adjusted test year level of operations is $22,204,830. The following charts summarize the gross revenues and the rates of return which the Company should have a reasonable opportunity to achieve, based upon the level of revenues approved herein. Such charts, illustrating the Company's gross revenue requirements, incorporate the findings, adjustments and conclusions herein made by the Commission.

SCHEDULE 1

NANTAHALA POWER AND LIGHT COMPANY

Docket No. E-13, Sub 44

North Carolina Retail Operations

STATEMENT OF RATE BASE AND RATE OF RETURN

For the Test Year Ended December 31, 1981

Item	*Amount*
(a)	(b)
Electric plant in service	$61,289,278
Construction work in progress	406,209
Materials and supplies	519,025
Cash working capital	594,010
Subtotal	62,808,522
Add:	
FERC license adjustment	98,243
Unamortized maintenance	144,516
Less:	
Accumulated depreciation	33,012,528
Accumulated deferred income taxes	3,861,645
Accumulated deferred investment tax credit pre-1971	48,863
Customer deposits	220,857
Total original cost rate base	$25,907,388
Rate of Return:	
Present rates	10.07%
Approved rates	12.52%

SCHEDULE II

NANTAHALA POWER AND LIGHT COMPANY

Docket No. E-13, Sub 44

North Carolina Retail Operations

STATEMENT OF OPERATING INCOME FOR RETURN

For the Test Year Ended December 31, 1981

Item	*Present Rates*	*Approved Increase*	*After Approved Increase*
(a)	(b)	(c)	(d)
Operating Revenues:			
Sales of electricity	$20,623,491	$1,335,857	$21,959,348
Other operating revenues	245,482	—	245,482
Total operating revenues	20,868,973	1,335,857	22,204,830
Operating Expenses:			
Purchased power expense	6,138,500	—	6,138,500
Other O&M expenses	7,151,238	5,611	7,156,849
Depreciation & amortization	1,863,668	—	1,863,668
Taxes other than income	1,720,108	79,815	1,799,923
Income taxes:			
State	183,158	75,026	258,184
Federal	1,083,062	540,686	1,623,748
Deferred in prior years	(78,960)	—	(78,960)
Investment tax credits	275,566	—	275,566
Amortization of ITC	(77,181)	—	(77,181)
Total operating expenses	18,259,159	701,138	18,960,297
Net operating income	$ 2,609,814	$ 634,719	$3,244,533

SCHEDULE III

NANTAHALA POWER AND LIGHT COMPANY

Docket No. E-13, Sub 44

North Carolina Retail Operations

STATEMENT OF CAPITALIZATION AND RELATED COSTS

Twelve Months Ended December 31, 1981

Item (a)	*Ratio* % (b)	*Original Cost Rate Base* (c)	*Embedded Cost* % (d)	*Net Operating Income* (e)
		Present Rates		
Long-term debt	43.9	$11,373,343	8.72	$ 991,756
Common equity	56.1	14,534,045	11.13	1,618,058
Total	100.0	$25,907,388	—	$2,609,814
		Approved Rates		
Long-term debt	43.9	$11,373,343	8.72	$ 991,756
Common equity	56.1	14,534,045	15.50	2,252,777
Total	100.0	$25,907,388	—	$3,244,533

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 21-25

Company witness Carson, Public Staff witness Turner, and Jackson Paper Company witness Rudden presented testimony and evidence regarding the Company's proposed rate designs and service rules.

General

The major changes Nantahala proposes for its Service Rules and Regulations include: (1) an extra facilities charge of 2% of installed cost; (2) after hours service connection charge of $15.00; (3) after hours service connection charge of $17.50 if service was suspended by the Company; and (4) trouble call charge if trouble is not related to the Company's equipment of $10.00 during normal business hours and $25.00 during non-business hours.

Generally, Nantahala proposed no major structural changes in its rate design. The amount of increase by rate schedule, however, varies because of an effort to continue the process of equalizing rate class rates of return. Additionally, each rate schedule is adjusted to roll into basic rates the adjusted level of purchased power costs under the new TVA contract.

Nantahala is also proposing to add an RC rate schedule for those customers who achieve certain insulation standards as prescribed in the schedule, limited to the first 100 qualifying homes.

Nantahala further proposes to delete the paragraph pertaining to the funding of the Alternative Energy Corporation from each rate schedule and add a rider which incorporates the level of funding approved by the Commission in Docket No. E-13, Sub 35.

None of the proposals discussed above were opposed by any party herein, and the Commission concludes that they should be approved.

Billing Based on Monthly Meter Readings

In Docket No. E-13, Sub 35, the Commission ordered Nantahala to take monthly meter readings and bill its customers accordingly. The Commission does not believe that merely because certain findings of that docket have been appealed that the requirement for monthly meter readings should be delayed any longer. Witness Tucker of Nantahala testified during the hearing in this proceeding that Nantahala had no objections to monthly meter reading so long as it were allowed to recover the expenses of those meter readings. The Commission concludes that the Company should base its residential billings on monthly meter readings as required in Docket No. E-13, Sub 35.

Separate Listing of Purchase Power Adjustments on Bills

The proposed order filed by the Public Staff in this proceeding recommended that the purchased power adjustment be itemized separately on the monthly bills to customers. The Commission notes that the unit price per kwh representing the purchased power adjustment is already listed separately on the monthly bills, except for those months where the bills are estimated. The Commission is of the opinion that such listing of the unit price per kwh for the purchased power adjustment should be sufficient, and concludes that the Company's present practice is acceptable.

Time of Use Rates and Load Management

Witness Turner testified that the Commission has approved tariffs for other electric utilities in its jurisdiction which are cost justified and promote efficient use of electric utility resources. These tariffs include time-of-use features, seasonal charges, and various load management provisions and more accurate measurement of electric usage with demand meters as well as energy meters.

The Public Staff takes the position that similar tariffs should be made available on a voluntary basis for the customers of Nantahala whenever these tariffs can be justified, but it is not

proposing specific rate tariffs in this proceeding because of the uncertainty of the basis for these tariffs.

On cross-examination, Witness Turner testified that he had made no studies of Nantahala's particular system to determine whether or not rates such as those advocated would be appropriate. Although Witness Turner testified that he had reviewed studies that had been used in applications by other utilities, he testified that those systems were substantially different from Nantahala's. He testified that the studies for the other companies would not be appropriate because Nantahala has only hydroelectric generation. Witness Turner acknowledged that the purpose of time-of-day rates, for example, as [sic] to enable a Company to shift load from peak periods to off-peak periods. He acknowledged that Nantahala's 1983 contract with TVA causes Nantahala to attempt to schedule its generation so as to minimize its on peak purchases from TVA. He testified that it would be appropriate for Nantahala to conduct a study with input from the Public Staff to see just how time of day rates, for example, might dovetail with provisions of that contract to make sure that costs indeed are saved. He testified that he would not be opposed to an analysis made of Nantahala's operation in conjunction with the purchases from TVA as a preliminary step to the design of time-of-use rates.

Based upon the foregoing, the Commission determines that Nantahala, in conjunction with the Public Staff, should conduct a study to determine whether rates as advocated by the Public Staff should be implemented. The Commission recognizes that implementation of time-of-use rates entails a considerable expense such as the purchase of meters for that purpose. The Commission requires that Nantahala undertake such studies and report its findings to the Commission within a reasonable time.

Proposed New Rate Schedule LIS

Witness Rudden recommended the establishment of a new class of service, large industrial service (LIS), and offered a proposed rate design for that class. Witness Rudden testified

that Jackson Paper will have a peak demand of 6,100 kw and a monthly non-coincident peak load factor in the range of 85 to 90%. The next largest customer of the Nantahala system, Western Carolina University, had a 1981 peak demand of only 3,940 kw, an average monthly demand of about 3,500 kw and an average monthly load factor of less than 62%. Witness Rudden testified that Jackson's load characteristics result in a large difference between the cost of serving Jackson and other customers, and it is therefore appropriate to reflect these differences in the rates charged to Jackson. Nantahala had originally filed an LG rate that would produce 13.61% rate of return on the large general service rate. At the 13.61% return level, the revenue required from the rates charged to Jackson is $891,148, or $123,373 less than the revenue that would be charged to Jackson by Nantahala's proposed LG rate.

Witness Rudden designed a rate for Jackson that will produce revenues of approximately $891,000 and a rate of return of 13.61%. He designed the LIS rate on a cost-based structure that will provide the correct revenue level and rate of return. Witness Rudden structured the demand and energy charges in a way that reflected the higher unit demand cost of the LIS customer relative to the LG customer, and the lower average energy cost associated with higher load factor customers. He selected 5,000 kw as a minimum demand level for the LIS rate. This kw level was selected because it reasonably approximates Jackson's load of 5,800 kw in the non-peak months and is also approximately equal to the midpoint of the difference between Jackson's maximum load and the next largest customer's demand load. Witness Rudden recommended that Nantahala remove the current 4,000 kw in the LG rate and make it available to all large general service customers. The proposed LIS class would be an option to those LG customers with demands exceeding 5,000 kw and whose load factors would make LIS more economical.

On cross-examination, Witness Rudden agreed that, while the LIS schedule would permit Nantahala to sell power at the rate of approximately 2.0¢ per kw, Nantahala must pay TVA

3.4¢ per kw (based on a 100% load factor for purchased power) with the difference being made up by the other customer classes. In fact, Late-Filed Exhibit RJR-8 requested by Dr. Hammond shows that the overall increase in revenue requirement, after including the JPC load, will be $1,599,509; and only 56% of said $1,599,509 increase will be paid by Jackson Paper Company under the LIS rate schedule, leaving a deficit which must be paid by the remaining rate classes.

The Commission is unconvinced that the LIS rate schedule proposed for the Jackson Paper Manufacturing Company is cost justified and concludes that said rate schedule should not be approved.

IT IS, THEREFORE, ORDERED as follows:

1. That the Commission's Notice of Decision and Order dated November 29, 1983, be, and the same is hereby, reaffirmed.

2. That the rate schedules and service rules and regulations filed herein on December 13, 1983, by Nantahala be, and the same are hereby, approved.

ISSUED BY ORDER OF THE COMMISSION.

This the 22nd day of December 1983.

NORTH CAROLINA UTILITIES COMMISSION

/s/ SANDRA J. WEBSTER

Sandra J. Webster, *Chief Clerk*

(SEAL)

APPENDIX F

Opinion of The North Carolina Utilities Commission, dated November 29, 1983

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-13, SUB 44

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of

Application of Nantahala Power and Light Company for Authority to Adjust and Increase Its Electric Rates and Charges

NOTICE OF DECISION AND ORDER

(issued 29 November 1983)

HEARD IN:

Swain County Courthouse, Bryson City, North Carolina, on September 27, 1983, and the Commission Hearing Room, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina 27602, on September 29 and 30, 1983 and October 3, 4, 5, 6, 17 and 18, 1983.

BEFORE:

Commissioner Edward B. Hipp, Presiding; and Commissioners Leigh H. Hammond and Ruth E. Cook.

APPEARANCES:

For Nantahala Power and Light Company:

Robert C. Howison, Jr., James E. Tucker, Edward Finley, Jr., and Darla B. Tarletz, Hunton and Williams, Attorneys at Law, P.O. Box 109, Raleigh, North Carolina 27602.

For Aluminum Company of America and Tapoco, Inc.:

Ronald D. Jones, David R. Poe and Dennis P. Harkawik, LeBoeuf, Lamb, Leiby and McRae, Attorneys at Law, 336 Fayetteville Street, 7th Floor, Raleigh, North Carolina 27602.

For the Attorney General:

Richard L. Griffin, Assistant Attorney General, and JoAnne Sanford, Special Deputy Attorney General, North Carolina Department of Justice, P.O. Box 629, Raleigh, North Carolina 27602.

For: The Using and Consuming Public

For the Public Staff:

James D. Little, Chief Counsel, and Thomas K. Austin, Staff Attorney, Public Staff-North Carolina Utilities Commission, P.O. Box 991, Raleigh, North Carolina 27602.

For: The Using and Consuming Public

For the Intervenors:

William Crisp and Robert F. Page, Crisp, Davis, Schwentker and Page, Attorneys at Law, P.O. Box 751, Raleigh, North Carolina 27602.

For: Counties of Cherokee, Graham, Jackson, Macon and Swain; Towns of Andrews, Bryson City, Dillsboro, Robbinsville and Sylva; Tribal Council of Eastern Band of Cherokee Indians; and Henry J. Truett, Howard Paton, Veronica Nicholas, O. W. Hooper, Jr., and Alvin E. Smith.

David H. Permar, Hatch, Little, Bunn, Jones, Few and Berry, Attorneys at Law, P. O. Box 527, Raleigh, North Carolina 27608.

For: Jackson Paper Manufacturing Company

BY THE COMMISSION: On February 1, 1983, Nantahala Power and Light Company (Applicant, Company or Nantahala) filed an application with the North Carolina Utilities Commission seeking to increase its rates and charges for retail electric service in North Carolina effective March 4, 1983. The application proposed an annual increase in gross annual revenues of the Company of approximately 6.9%.

On February 7, 1983, the Attorney General of the State of North Carolina filed a Notice of Intervention in the case on behalf of the using and consuming public.

On February 16, 1983, the Public Staff filed Notice of Intervention on behalf of the using and consuming public.

On February 21, 1983, Jackson Paper Manufacturing Company filed petition to intervene. By Order issued February 23, 1983, the Commission allowed the intervention of Jackson Paper Manufacturing Company.

On March 1, 1983, the Commission issued an Order suspending the Applicant's proposed rates.

On March 1, 1983, a petition for leave to intervene was filed on behalf of the Counties of Cherokee, Graham, Jackson and Swain; the Towns of Andrews, Bryson City, Dillsboro, Robbinsville and Sylva; and by the Tribal Council of the Eastern Band of Cherokee Indians; and by Henry J. Truett, Howard Paton, Veronica Nicholas, O. W. Hooper, Jr. and Alvin E. Smith. On July 19, 1983, said petition was amended to include the County of Macon. The Commission issued an Order allowing the original petition to intervene on March 10, 1983, and issued an Order allowing the intervention of the County of Macon on August 9, 1983.

On April 22, 1983, the Commission issued an Order which scheduled hearings on the application with hearings to be held in the service area in Bryson City on September 27, 1983, and to resume in Raleigh on September 29, 1983.

On August 9, 1983, the Commission issued an Order which joined Aluminum Company of America (Alcoa) and Tapoco, Inc. (Tapoco) as parties.

Other motions, pleadings and Commission Orders filed in this docket may be found in the official file in this matter. The application came on for hearing at the places and times as ordered by the Commission. All parties were present and represented by counsel.

At the hearing held in Bryson City on September 27, 1983, nine members of the public testified. The resumed proceedings came on for hearing in Raleigh as scheduled.

Nantahala offered the testimony of the following witnesses: N. Edward Tucker, Jr., Vice President-Finance and Treasurer of Nantahala; Joseph F. Brennan, President of Associated Utility Services, Inc.; Stuart G. McDaniel, Senior Vice President of Associated Utility Services, Inc.; John K. Carson, Manager-Client Services, for Ebasco Business Consulting Company; and Dale M. Keith, Project Manager-Black and Veatch, Engineers/Architects.

Testifying on behalf of the Intervenors Public Staff, Attorney General and County of Cherokee, et al were: Dr. Robert Weiss, Director of the Economic Research Division of the Public Staff; Benjamin Turner, Engineer-Electric Division of the Public Staff; Candace Paton, Staff Accountant-Accounting Division of the Public Staff; David A. Springs, Senior Vice President of Southern Engineering Company; and J. Bertram Solomon of Southern Engineering Company.

Testifying for Intervenor Jackson Paper Manufacturing Company were Richard J. Rudden, President of R. J. Rudden Associates, Inc. and Donald L. Alexander of Dixie Container Corporation.

The following witnesses testified on behalf of Alcoa and Tapoco; David A. Toof, Manager in the Washington office of the Ernst and Whinney Utility Group; John Devlin, Manager with Ernst and Whinney; and William W. Lindsay, Vice President of NPS Energy Management, Inc.

Nantahala offered the rebuttal testimony of the following witnesses: Dale Kenneth Hollister, First Vice President in the Regulated Industries Finance Department with Dean Witter Reynolds; Richard C. Crawford, Director of the Division of

Energy Use and Distribution Relations with the Tennessee Valley Authority; and Bruce A. Ainsworth, Project Civil Engineer in the Power Division of Black and Veatch.

Alcoa and Tapoco offered rebuttal testimony by Christopher Scott, President of the North Carolina AFL/CIO.

Based on the foregoing, the evidence adduced at the hearing and the entire record in this matter, the Commission makes the following

FINDINGS OF FACT

1. Nantahala is a duly organized public utility company under the laws of the State of North Carolina, subject to the jurisdiction of this Commission, and is holding a franchise to furnish electric power in the western part of North Carolina under rates and services regulated by this Commission as provided by Chapter 62 of the General Statutes.

2. The test period for purposes of this proceeding is the 12-month period ended December 31, 1981, adjusted for certain known changes based upon circumstances and events occurring up to the time of the close of hearings in this docket.

3. By its application, Nantahala is seeking an increase in its basic rates and charges to its North Carolina retail customers of $1,443,283.

4. The overall quality of electric service provided by Nantahala to its North Carolina retail customers is adequate.

5. Both Nantahala and Tapoco, Inc. are wholly-owned subsidiaries of Aluminum Company of America.

6. The 1962 New Fontana Agreement and the 1971 Apportionment Agreement expired by their own terms on December 31, 1982. The New Fontana Agreement was replaced by an Interconnection Agreement negotiated independently by Nantahala with the Tennessee Valley Authority (TVA). Nantahala's entire generating capacity is from hydroelectric stations, two of which have water storage dams and nine of which are run-of-the-river generators. By controlling its water releases under the

1983 Interconnection Agreement, Nantahala can supply most of its customers' needs from its own hydroelectric generation during normal water conditions and average consumption hours and seasons. During low water and peak consumption periods, Nantahala can supplement its available generation by outside purchases of power from TVA or other suppliers at the most advantageous cost available at such times. During high water and flood seasons when consumption is low, Nantahala will have to release water from its storage when its consumers will have no use for the resulting generation, and Nantahala can then sell such surplus power to TVA at the most advantageous price available at such time, and its consumers will get full benefit of the proceeds of such sales in setting Nantahala's rates. The 1983 Interconnection Agreement between Nantahala and TVA provides substantial benefits to the Company's retail ratepayers in North Carolina which were not present under the New Fontana Agreement and the 1971 Apportionment Agreement. Changed conditions reflected in the 1983 Interconnection Agreement, which became effective January 1, 1983, include, but are not limited to, the following: Nantahala now dispatches and controls the operation of all of its hydroelectric generating facilities and retains for itself and its customers all of the company's hydroelectric generation; Nantahala operates and dispatches said system in order to best meet its load requirements and depends upon TVA only for the purchase of its capacity and energy needs above and beyond that which the Company can generate for itself; Nantahala is assured of a firm supply of supplemental and back-up power and energy from TVA, without limitation, when the Company's own generation cannot meet its load; Nantahala is permitted to utilize, without limitation, any other source of supplemental power which may be available, including the addition of new generating capacity to the Company's system and/or purchases from other suppliers; and Nantahala can sell its excess generation to TVA. Nantahala's North Carolina retail rates should, therefore, be established in this proceeding in recognition of and pursuant to the more favorable terms and benefits of the 1983 Interconnection Agreement.

7. The New Fontana Agreement and 1971 Apportionment Agreement resulted in substantial concealed benefits accruing to Alcoa to the significant detriment of the customers of Nantahala. No direct benefits now accrue to Alcoa as a result of the 1983 Interconnection Agreement to the detriment of Nantahala's customers. Furthermore, if any indirect benefits enure to Alcoa as a result of said agreement, any such indirect benefits do not appear to be the result of unlawful preference having been shown to Alcoa by Nantahala to the significant detriment of Nantahala's customers.

8. The roll-in in methodology proposed herein by the Intervenors for pro forma purposes in fixing Nantahala's rates without any accompanying order from the appropriate federal jurisdiction requiring the physical sale of Tapoco power to Nantahala or a guarantee of Nantahala's financial integrity by Alcoa will ultimately result in insolvency or bankruptcy of Nantahala and an inability of Nantahala to meet its customers' needs for electric power, and will not serve the best interests of Nantahala's customers or its service area in North Carolina. Further, if and when the federal jurisdiction having authority to allocate Tapoco power to the Nantahala service area should order such allocation, then the Commission can reopen this docket to readjust the rates of Nantahala to reflect the actual cost of such purchases from Tapoco as may be approved by said federal jurisdiction.

9. The Nantahala electric system should be treated independently of Tapoco in this proceeding with respect to all matters affecting the determination of Nantahala's reasonable cost of service applicable to its North Carolina retail operations. Under the 1983 Interconnection Agreement, Nantahala is a stand alone hydroelectric power company which operates its 11 hydroelectric generation stations for the sole benefit of its customers, all of which are in North Carolina, without any obligation to or regard for the TVA or Tapoco hydro stations in North Carolina and Tennessee or for Alcoa's power use in

Tennessee. Further, Alcoa receives no power or any other direct benefit from Nantahala's power generation. All of the benefits of the generation from Nantahala's entire hydroelectric system are retained exclusively for the use and benefit of the North Carolina customers of Nantahala, whose entire service is confined to its service area in North Carolina. Thus, the roll-in methodology advocated herein by the Intervenors and previously utilized by the Commission in prior dockets in making cost of service allocations is not appropriate for use in setting Nantahala's retail rates in this proceeding. Consequently, each finding of fact appearing in this Order which deals with a proper level of rate base, revenues, and expenses has been determined based upon Nantahala's stand-alone levels of revenues and costs.

10. Nantahala should actively and thoroughly investigate and pursue alternatives to purchasing power from TVA, including, in particular, power purchases from Tapoco, in order to secure for its retail ratepayers purchase power at the lowest possible cost.

11. Nantahala should continue to adjust its rates through use of the purchase power adjustmet (PPA) clause pursuant to G.S. 62-130(d). A base unit cost of 1.132757 ¢/kwh for purchase power (excluding gross receipts tax) is appropriate for use in this proceeding, reflecting a reasonable base cost for purchase power of $6,138,500 for North Carolina retail service. The base unit cost of 1.132757 ¢/kwh for purchase power found reasonable herein shall be utilized by Nantahala in future PPA filings which are proposed to become effective subsequent to the date of this Order and until such time as a new base unit cost for purchase power is set by the Commission.

12. Inclusion of $406,209 of reasonable and prudent expenditures for construction work in progress (CWIP) in Nantahala's rate base is in the public interest and is necessary to the financial stability of the Company.

13. Nantahala's net original cost of electric plant is $24,772,451, consisting of electric plant in service of $61,289,278; construction work in progress of $406,209; reduced by accumulated provision for depreciation of $33,012,528; accumulated deferred income taxes of $3,861,645; and accumulated deferred investment tax credit (pre-1971) of $48,863.

14. The reasonable allowance for working capital is $1,134,937, consisting of cash working capital of $594,010, materials and supplies of $519,025, FERC license expense of $98,243, unamortized maintenance of $144,516, less customer deposits of $220,857.

15. Nantahala's rate base is $25,907,388. This amount consists of net original cost of electric plant of $24,772,451, plus a reasonable allowance for working capital of $1,134,937.

16. The approximate gross revenues from electric operations for the test year, after accounting and pro forma adjustments, under rates in effect at the time of the application are $20,868,973 and after giving effect to the Company proposed increase, are $22,312,256 ($20,868,973 + $1,443,283).

17. The approximate level of test year operating expenses under rates in effect at the time of the application, after accounting and pro forma adjustments, including taxes and interest on customer deposits, is $18,259,159, which includes an amount of $1,863,668 for actual investment currently consumed through reasonable, actual depreciation after annualization to year-end levels.

18. The reasonable capital structure to be employed as a basis for setting rates in this proceeding is composed as follows:

Item	*Ratio*
Long-term Debt	43.9%
Common Equity	56.1%
Total	100.0%

19. The proper embedded cost of long-term debt is 8.72%. The reasonable rate of return Nantahala should be allowed to earn on common equity is 15.5%. Use of a weighted average for the cost of debt and common equity, with reference to the reasonable capital structure heretofore determined, yields an overall fair rate of return of 12.52% to be applied to the Company's original cost rate base. Such rate of return will enable Nantahala, by sound management, to produce a fair return for its shareholders, to maintain its facilities and service in accordance with the reasonable requirements of its customers, and to compete in the market for capital funds on terms which are reasonable and fair to customers and its existing investors.

20. The approximate annual level of revenue which Nantahala should be authorized to collect through rates charged for its sales of service, based upon the findings of fact set forth hereinabove, is $22,204,830. Such level of revenue reflects a required increase of $1,335,857 over the test year level of revenue ($20,868,973) which would be produced under rates in effect at the time this rate application was filed.

21. Nantahala's proposed rate design and service rules are reasonable and appropriate as modified herein.

22. Nantahala should base all residential customer billings on monthly meter readings as ordered in Docket No. E-13, Sub 35.

23. Nantahala should list the Purchased Power Adjustment as a separate item on each billing.

24. Nantahala should undertake studies, in conjunction with the Public Staff, to determine the feasibility of time-of-use rates, including seasonal rates, and load control of residential water heating and central air conditioning.

25. The proposed rate schedule LIS (Large Industrial Service) should not be approved in this proceeding.

Based upon the findings of fact set forth hereinabove, the Commission concludes that the appropriate annual level of revenues which Nantahala should be authorized to collect through rates charged for its sales of service based upon the adjusted test year level of operations is $22,204,830. The following charts summarize the gross revenues and the rates of return which the Company should have a reasonable opportunity to achieve, based upon the level of revenues approved herein. Such charts, illustrating the Company's gross revenue requirements, incorporate the findings, adjustments and conclusions herein made by the Commission:

SCHEDULE 1

NANTAHALA POWER AND LIGHT COMPANY

Docket No. E-13, Sub 44

North Carolina Retail Operations

STATEMENT OF RATE BASE AND RATE OF RETURN

For the Test Year Ended December 31, 1981

Item (a)	*Amount* (b)
Electric plant in service	$61,289,278
Construction work in progress	406,209
Materials and supplies	519,025
Cash working capital	594,010
Subtotal	62,808,522
Add:	
FERC license adjustment	98,243
Unamortized maintenance	144,516
Less:	
Accumulated depreciation	33,012,528
Accumulated deferred income taxes	3,861,645
Accumulated deferred investment tax credit pre-1971	48,863
Customer deposits	220,857
Total original cost rate base	$25,907,388
Rate of Return:	
Present rates	10.07%
Approved rates	12.52%

SCHEDULE II

NANTAHALA POWER AND LIGHT COMPANY

Docket No. E-13, Sub 44

North Carolina Retail Operations

STATEMENT OF OPERATING INCOME FOR RETURN

For the Test Year Ended December 31, 1981

Item	*Present Rates*	*Approved Increase*	*After Approved Increase*
(a)	(b)	(c)	(d)
Operating Revenues:			
Sales of electricity	$20,623,491	$1,335,857	$21,959,348
Other operating revenues	245,482	—	245,482
Total operating revenues	20,868,973	1,335,857	22,204,830
Operating Expenses:			
Purchased power expense	6,138,500	—	6,138,500
Other O&M expenses	7,151,238	5,611	7,156,849
Depreciation and amortization	1,863,668	—	1,863,668
Taxes other than income	1,720,108	79,815	1,799,923
Income taxes:			
State	183,158	75,026	258,184
Federal	1,083,062	540,686	1,623,748
Deferred in prior years	(78,960)	—	(78,960)
Investment tax credits	275,566	—	275,566
Amortization of ITC	(77,181)	—	(77,181)
Total operating expenses	18,259,159	701,138	18,960,297
Net operating income	$ 2,609,814	$ 634,719	$3,244,533

SCHEDULE III

NANTAHALA POWER AND LIGHT COMPANY

Docket No. E-13, Sub 44

North Carolina Retail Operations

STATEMENT OF CAPITALIZATION AND RELATED COSTS

Twelve Months Ended December 31, 1981

Item	*Ratio* %	*Original Cost Rate Base*	*Embedded Cost* %	*Net Operating Income*
(a)	(b)	(c)	(d)	(e)
		Present Rates		
Long-term debt	43.9	$11,373,343	8.72	$ 991,75
Common equity	56.1	14,534,045	11.13	1,618,05
Total	100.0	$25,907,388	—	$2,609,81
		Approved Rates		
Long-term debt	43.9	$11,373,343	8.72	$ 991,75
Common equity	56.1	14,534,045	15.50	2,252,77
Total	100.0	$25,907,388	—	$3,244,53

An Order setting forth the evidence and conclusions in support of this decision will be issued subsequently. The Commission will consider the time for filing exceptions and notice of appeal in this proceeding to run from the date of issuance of such Order.

IT IS THEREFORE, ORDERED as follows:

1. That the appropriate annual level of revenues which Nantahala is hereby authorized to collect for rates charged for its sales of service, based upon adjusted test year level of operations, is $22,204,830. Rates designed to produce the $1,335,857 annual increase approved herein shall be effective for service rendered on and after the date of this Order.

2. That Nantahala shall file for Commission approval, within ten (10) working days of the issuance date of this Order, rate schedules designed to provide the revenues set forth in Decretal Paragraph No. 1 above. Said rate schedules shall be designed in a manner consistent with that proposed by Nantahala in its application as filed in this docket; provided, however, that such rates shall be scaled downward so as not to exceed the annual level of revenue herein allowed. Such rate filing shall be accompanied by a computation showing the level of revenues which said rate schedules will produce by rate schedule, plus a computation showing the overall retail rate of return and the rate of return for each rate schedule which will be produced by said revenues.

3. That the Large Industrial Service (LIS) Schedule of rates proposed in this proceeding should be, and hereby is, denied.

4. That Nantahala shall begin calculating monthly bills for all residential customers based on monthly meter readings within 90 days after the date of this Order, said 90-day period being the time allowed for acquiring and training the additional staff and equipment necessary to implement such monthly meter readings.

5. That Nantahala shall study the feasibility of offering to its customers rate schedules based on time-of-use and on-peak control of residential customers loads such as water heaters and air conditioners and shall report its findings to the Commission within a reasonable period of time.

6. That Nantahala shall include the Purchased Power Adjustment as a separate item on each customer billing.

7. That any motions heretofore filed in this docket which have not been previously ruled upon be, and the same are hereby, denied.

8. That Nantahala Power and Light Company shall give appropriate public notice of the rate increase approved herein by mailing a copy of the notice attached hereto as Appendix A to each of its North Carolina retail customers during the next normal billing cycle following the filing and acceptance of the rate schedules approved in Decretal Paragraph No. 2 above.

9. That Nantahala shall actively and thoroughly investigate and pursue alternatives to purchasing power from TVA, including, in particular, power purchases from Tapoco, in order to secure for its retail ratepayers purchase power at the lowest possible cost. Further, that Nantahala shall file testimony in conjunction with its next general rate case specifically detailing the action which it has undertaken in compliance with this decretal paragraph.

ISSUED BY ORDER OF THE COMMISSION.

This the 29th day of November, 1983.

NORTH CAROLINA UTILITIES COMMISSION

/s/ SANDRA J. WEBSTER,

Sandra J. Webster, *Chief Clerk*

(SEAL)

APPENDIX A

DOCKET NO. E-13, SUB 44

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of

Application of Nantahala Power and Light Company for Authority to Adjust and Increase Its Electric Rates and Charges

NOTICE TO CUSTOMERS

A three-member panel of the North Carolina Utilities Commission, after months of investigation and following hearings held in Bryson City and Raleigh, issued its Order today allowing Nantahala Power and Light Company (Nantahala) to increase its electric rates and charges currently in effect by 6.40%. The Company's application for rate relief was filed with the Commission on February 1, 1983. Nantahala had requested an increase of $1.4 million annually over rates then in effect. The Commission's Order allows Nantahala an annual increase of $1.3 million.

The Commission estimates that the bill of a typical residential customer using 1,000 kWh per month and presently paying approximately $46.36 per month will increase to approximately $50.24 per month. Such increase reflects a purchase power cost adjustment of 0.8165¢ per kWh for usage in December 1983. The cost of purchased power fluctuates monthly due to a variety of factors, thereby necessitating the continuation of Nantahala's purchased power adjustment clause (PPA). Such rates compare favorably with those of Carolina Power & Light Company (CP&L) and Duke Power Company, the two major electric utilities operating in North Carolina. The bill of a

typical CP&L residential customer is currently $69.98 per month and the bill of a typical Duke customer is currently $62.48.

In allowing the 6.40% increase, the Commission found that the approved rates would provide Nantahala, under efficient management, an opportunity to earn an approximate 12.5% rate of return on the original cost of its property. In its application, Nantahala had sought rates which would allow it to earn a rate of return of 12.81%.

In reaching its decision to allow the increase, the Commission ruled that a 1983 Interconnection Agreement between Nantahala and the Tennessee Valley Authority (TVA) provided substantial benefits to the Company's retail ratepayers in North Carolina which were not present under previous agreements between Nantahala, Aluminum Company of America (ALCOA), Tapoco, Inc. (Tapoco), and TVA. The Commission in two previous cases had ruled that the agreements between the parties in effect prior to the 1983 Interconnection Agreement resulted in substantial concealed benefits accruing to Alcoa to the significant detriment of the customers of Nantahala.

The Commission's decision issued today will not affect its earlier decisions relating to two previous Commission rate orders which are now on appeal in the courts, as it is based on changed conditions brought about under the Nantahala-TVA 1983 Interconnection Agreement. The prior Commission decisions require Nantahala and/or ALCOA to make refunds to Nantahala's North Carolina retail customers in an amount which is now estimated to be in a range from $35 million to $40 million.

Further, the North Carolina Utilities Commission has filed a legal action with the Federal Energy Regulatory Commission (FERC) requesting that Tapoco be required to make low cost hydro generation available to Nantahala for use in serving its public load. FERC has regulatory jurisdiction over Tapoco. Should the N.C. Commission's request be granted, Nanta-

hala's rates will be readjusted to reflect the lower cost of power purchased from Tapoco.

In the area of rate design, the Commission directed that additional steps be taken toward more uniform rates of return for each rate schedule. The rate increase will become effective for service rendered on and after November 29, 1983.

APPENDIX G

Excerpts From The Federal Power Act, 16 U.S.C. §§ 791(a)-828(c)

SECTION 4, 16 U.S.C. § 797:

General powers of Commission

The Commission is authorized and empowered—

* * *

(e) *Issue of licenses for construction, etc., of dams, conduits, reservoirs, etc.*

To issue licenses to citizens of the United States, or to any association of such citizens, or to any corporation organized under the laws of the United States or any State thereof, or to any State or municipality for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses, transmission lines, or other project works necessary or convenient for the development and improvement of navigation and for the development, transmission, and utilization of power across, along, from, or in any of the streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, or upon any part of the public lands and reservations of the United States (including the Territories), or for the purpose of utilizing the surplus water or water power from any Government dam, except as herein provided: *Provided,* That licenses shall be issued within any reservation only after a finding by the Commission that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired, and shall be subject to and contain such conditions as the Secretary of the department under whose supervision such reservation falls shall deem necessary for the adequate protection and utilization of such reservations: *Provided further,* That no license affecting the navigable capacity of any navigable waters of the United States shall be issued under the plans of the dam or other structures affecting the navigation have been approved by the Chief of Engineers and the Secretary of the Army. Whenever the contemplated improvement is, in the judgment of the Commission, desirable and justified in the public interest for the purpose of improving or developing a waterway

or waterways for the use or benefit of interstate or foreign commerce, a finding to that effect shall be made by the Commission and shall become a part of the records of the Commission: *Provided further,* That in case the Commission shall find that any Government dam may be advantageously used by the United States for public purposes in addition to navigation, no license therefor shall be issued until two years after it shall have reported to Congress the facts and conditions relating thereto, except that this provision shall not apply to any Government dam constructed prior to June 10, 1920: *And provided further,* That upon the filing of any application for a license which has not been preceded by a preliminary permit under subsection (f) of this section, notice shall be given and published as required by the proviso of said subsection.

* * *

SECTION 6, 16 U.S.C. § 799:

License; duration, conditions, revocation, alteration, or surrender

Licenses under this subchapter shall be issued for a period not exceeding fifty years. Each such license shall be conditioned upon acceptance by the licensee of all the terms and conditions of this chapter and such further conditions, if any, as the Commission shall prescribe in conformity with this chapter, which said terms and conditions and the acceptance thereof shall be expressed in said license. Licenses may be revoked only for the reasons and in the manner prescribed under the provisions of this chapter, and may be altered or surrendered only upon mutual agreement between the licensee and the Commission after thirty days' public notice. Copies of all licenses issued under the provisions of this subchapter and calling for the payment of annual charges shall be deposited with the General Accounting Office, in compliance with section 20 of title 41.

SECTION 10, 16 U.S.C. § 803:

Conditions of license generally

All licenses issued under this subchapter shall be on the following conditions:

(a) Modification of plans, etc., to secure adaptability of project

That the project adopted, including the maps, plans, and specifications, shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, and for other beneficial public uses, including recreational purposes; and if necessary in order to secure such plan the Commission shall have authority to require the modification of any project and of the plans and specifications of the project works before approval.

* * *

SECTION 201, 16 U.S.C. § 824:

Declaration of policy; application of subchapter

(a) Federal regulation of transmission and sale of electric energy

It is declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation to the extent provided in this subchapter and subchapter III of this chapter and of that part of such business which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States.

(b) Use or sale of electric energy in interstate commerce

(1) The provisions of this subchapter shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but except as provided in paragraph (2) shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this subchapter and subchapter III of this chapter, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter.

* * *

(c) Electric energy in interstate commerce

For the purpose of this subchapter, electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof; but only insofar as such transmission takes place within the United States.

(d) "Sale of electric energy at wholesale" defined

The term "sale of electric energy at wholesale" when used in this subchapter, means a sale of electric energy to any person for resale.

(e) "Public utility" defined

The term "public utility" when used in this subchapter and subchapter III of this chapter means any person who owns or operates facilities subject to the jurisdiction of the Commission under this subchapter (other than facilities subject to such jurisdiction solely by reason of section 824i, 824j, or 824k of this title).

* * *

SECTION 205, 16 U.S.C. § 824d:

Rates and charges; schedules; suspension of new rates; automatic adjustment clauses

(a) Just and reasonable rates

All rates and charges made, demanded, or received by any public utility for or in connection with the transmission or sale of electric energy subject to the jurisdiction of the Commission, and all rules and regulations affecting or pertaining to such rates or charges shall be just and reasonable, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful.

(b) Preference or advantage unlawful

No public utility shall, with respect to any transmission or sale subject to the jurisdiction of the Commission, (1) make or grant any undue preference or advantage to any person or subject any person to any undue prejudice or disadvantage, or (2) maintain any unreasonable difference in rates, charges, service, facilities, or in any other respect, either as between localities or as between classes of service.

(c) Schedules

Under such rules and regulations as the Commission may prescribe, every public utility shall file with the Commission, within such time and in such form as the Commission may designate, and shall keep open in convenient form and place for public inspection schedules showing all rates and charges for any transmission or sale subject to the jurisdiction of the Commission, and the classifications, practices, and regulations affecting such rates and charges, together with all contracts which in any manner affect or relate to such rates, charges, classifications, and services.

(d) Notice required for rate changes

Unless the Commission otherwise orders, no change shall be made by any public utility in any such rate, charge, classification, or service, or in any rule, regulation, or contract relating thereto, except after sixty days' notice to the Commission and

to the public. Such notice shall be given by filing with the Commission and keeping open for public inspection new schedules stating plainly the change or changes to be made in the schedule or schedules then in force and the time when the change or changes will go into effect. The Commission, for good cause shown, may allow changes to take effect without requiring the sixty days' notice herein provided for by an order specifying the changes so to be made and the time when they shall take effect and the manner in which they shall be filed and published.

(e) Suspension of new rates; hearings; five month period

Whenever any such new schedule is filed the Commission shall have authority, either upon complaint or upon its own initiative without complaint, at once, and, if it so orders, without answer or formal pleading by the public utility, but upon reasonable notice, to enter upon a hearing concerning the lawfulness of such rate, charge, classification, or service; and, pending such hearing and the decision thereon, the Commission, upon filing with such schedules and delivering to the public utility affected thereby a statement in writing of its reasons for such suspension, may suspend the operation of such schedule and defer the use of such rate, charge, classification, or service, but not for a longer period than five months beyond the time when it would otherwise go into effect; and after full hearings, either completed before or after the rate, charge, classification, or service goes into effect, the Commission may make such orders with reference thereto as would be proper in a proceeding initiated after it had become effective. If the proceeding has not been concluded and an order made at the expiration of such five months, the proposed change of rate, charge, classification, or service shall go into effect at the end of such period, but in case of a proposed increased rate or charge, the Commission may by order require the interested public utility or public utilities to keep accurate account in detail of all amounts received by reason of such increase, specifying by whom and in whose behalf such amounts are paid, and upon completion of the hearing and decision may by

further order require such public utility or public utilities to refund, with interest, to the persons in whose behalf such amounts were paid, such portion of such increased rates or charges as by its decision shall be found not justified. At any hearing involving a rate or charge sought to be increased, the burden of proof to show that the increased rate or charge is just and reasonable shall be upon the public utility, and the Commission shall give to the hearing and decision of such questions preference over other questions pending before it and decide the same as speedily as possible.

(f) Review of automatic adjustment clauses and public utility practices; action by Commission; definition

(1) Not later than 2 years after November 9, 1978, and not less often than every 4 years thereafter, the Commission shall make a thorough review of automatic adjustment clauses in public utility rate schedules to examine—

(A) whether or not each such clause effectively provides incentives for efficient use of resources (including economical purchase and use of fuel and electric energy), and

(B) whether any such clause reflects any costs other than costs which are—

(i) subject to periodic fluctuations and

(ii) not susceptible to precise determinations in rate cases prior to the time such costs are incurred.

Such review may take place in individual rate proceedings or in generic or other separate proceedings applicable to one or more utilities.

(2) Not less frequently than every 2 years, in rate proceedings or in generic or other separate proceedings, the Commission shall review, with respect to each public utility, practices under any automatic adjustment clauses of such utility to insure efficient use of resources (including economical purchase and use of fuel and electric energy) under such clauses.

(3) The Commission may, on its own motion or upon complaint, after an opportunity for an evidentiary hearing, order a public utility to—

(A) modify the terms and provisions of any automatic adjustment clause, or

(B) cease any practice in connection with the clause,

if such clause or practice does not result in the economical purchase and use of fuel, electric energy, or other items, the cost of which is included in any rate schedule under an automatic adjustment clause.

(4) As used in this subsection, the term "automatic adjustment clause" means a provision of a rate schedule which provides for increases or decreases (or both), without prior hearing, in rates reflecting increases or decreases (or both) in costs incurred by an electric utility. Such term does not include any rate which takes effect subject to refund and subject to a later determination of the appropriate amount of such rate.

SECTION 206, 16 U.S.C. § 824e:

Power of Commission to fix rates and charges; determination of cost of production or transmission

(a) Unjust or preferential rates, etc.

Whenever the Commission, after a hearing had upon its own motion or upon complaint, shall find that any rate, charge, or classification, demanded, observed, charged, or collected by any public utility for any transmission or sale subject to the jurisdiction of the Commission, or that any rule, regulation, practice, or contract affected such rate, charge, or classification is injust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule, regulation, practice, or contract to be thereafter observed and in force, and shall fix the same by order.

(b) Investigation of costs

The Commission upon its own motion, or upon the request of any State commission whenever it can do so without prejudice to the efficient and proper conduct of its affairs, may investigate and determine the cost of the production or transmission of electric energy by means of facilities under the jurisdiction of the Commission in cases where the Commission has no authority to establish a rate governing the sale of such energy.

SECTION 306, 16 U.S.C. § 825e:

Any person, State, municipality, or State commission complaining of anything done or omitted to be done by any licensee or public utility in contravention of the provisions of this chapter may apply to the Commission by petition which shall briefly state the facts, whereupon a statement of the complaint thus made shall be forwarded by the Commission to such licensee or public utility, who shall be called upon to satisfy the complaint or to answer the same in writing within a reasonable time to be specified by the Commission. If such licensee or public utility shall not satisfy the complaint within the time specified or there shall appear to be any reasonable ground for investigating such complaint, it shall be the duty of the Commission to investigate the matters complained of in such manner and by such means as it shall find proper.

APPENDIX H

Excerpts From The North Carolina Public Utilities Act, N. C. Gen. Stat. §§ 62-1, *et seq.*

§ 62-133. How Rates Fixed.

(a) In fixing the rates for any public utility subject to the provisions of this Chapter, other than motor carriers and certain water and sewer utilities, the Commission shall fix such rates as shall be fair both to the public utility and to the consumer.

(b) In fixing such rates, the Commission shall:

(1) Ascertain the reasonable original cost of the public utility's property used and useful, or to be used and useful within a reasonable time after the test period, in providing the service rendered to the public within this State, less than portion of the cost which has been consumed by previous use recovered by depreciation expense plus the reasonable original cost of investment in plant under construction (construction work in progress). In ascertaining the cost of the public utility's property, construction work in progress as of the effective date of this subsection shall be excluded until such plant comes into service but reasonable and prudent expenditures for construction work in progress after the effective date of this subsection may be included, to the extent the Commission considers such inclusion in the public interest and necessary to the financial stability of the utility in question, subject to the provisions of subparagraph (b)(5) of this section.

(2) Estimate such public utility's revenue under the present and proposed rates.

(3) Ascertain such public utility's reasonable operating expenses, including actual investment currently consumed through reasonable actual depreciation.

(4) Fix such rate of return on the cost of the property ascertained pursuant to subdivision (1) as will enable the public utility by sound management to produce a fair return for its shareholders, considering changing economic conditions and other factors, as they then exist,

to maintain its facilities and services in accordance with the reasonable requirements of its customers in the territory covered by its franchise, and to compete in the market for capital funds on terms which are reasonable and which are fair to its customers and to its existing investors.

(4a) Require each public utility to discontinue capitalization of the composite carrying cost of capital funds used to finance construction (allowance for funds) on the construction work in progress included in its rate based upon the effective date of the first and each subsequent general rate order issued with respect to it after the effective date of this subsection; allowance for funds may be capitalized with respect to expenditures for construction work in progress not included in the utility's property upon which the rates were fixed. In determining net operating income for return, the Commission shall not include any capitalized allowance for funds used during construction on the construction work in progress included in the utility's rate base.

(5) Fix such rates to be charged by the public utility as will earn in addition to reasonable operating expenses ascertained pursuant to subdivision (3) of this subsection the rate of return fixed pursuant to subdivisions (4) and (4a) on the cost of the public utility's property ascertained pursuant to subdivision (1).

(c) The original cost of the public utility's property, including its construction work in progress, shall be determined as of the end of the test period used in the hearing and the probable future revenues and expenses shall be based on the plant and equipment in operation at that time. The test period shall consist of 12 months' historical operating experience prior to the date the rates are proposed to become effective, but the Commission shall consider such relevant, material and competent evidence as may be offered by any party to the proceeding tending to show actual changes in costs, revenues or the cost of

the public utility's property used and useful, or to be used and useful within a reasonable time after the test period, in providing the service rendered to the public within this State, including its construction work in progress, which is based upon circumstances and events occurring up to the time the hearing is closed.

(d) The Commission shall consider all other material facts of record that will enable it to determine what are reasonable and just rates.

(e) The fixing of a rate of return shall not bar the fixing of a different rate of return in a subsequent proceeding.

(f) Unless otherwise ordered by the Commission subsections (b), (c), and (d) shall not apply to rate changes of utilities engaged in the distribution of natural gas bought at wholesale by the utility for distribution to consumers to the extent such rate changes are occasioned by changes in the wholesale rate of such natural gas. The Commission may permit such rate changes to become effective simultaneously with the effective date of the change in the wholesale cost of such natural gas, or at such other time as the Commission may direct. This subsection shall not prohibit the Commission from investigating and changing unreasonable rates in accordance with the provisions of this Chapter. The public utility shall give such notice, which may include notice by publication, of the changes to interested parties as the Commission in its discretion may direct.

(g) Reserved.

(h) The Commission is not authorized to entertain applications filed on behalf of intrastate rail carriers to fix rates for a single commodity or to fix rates for groups of commodities which constitute less than a general rate increase.

APPENDIX I

Notices of Appeal

SUPREME COURT OF NORTH CAROLINA

No. 549A84

UTILITIES COMMISSION

Docket No. E-13, Sub 44

STATE OF NORTH CAROLINA, ex rel. UTILITIES COMMISSION; NANTAHALA POWER AND LIGHT COMPANY, Applicant; TAPOCO, INC. and ALUMINUM COMPANY OF AMERICA,

Respondents.

—v.—

LACY H. THORNBURG, ATTORNEY GENERAL; PUBLIC STAFF-NORTH CAROLINA UTILITIES COMMISSION; CHEROKEE, GRAHAM, JACKSON, MACON and SWAIN COUNTIES; TOWNS OF ANDREWS, BRYSON CITY, DILLSBORO, ROBBINSVILLE AND SYLVA; TRIBAL COUNCIL OF THE EASTERN BAND OF CHEROKEE INDIANS; and HENRY J. TRUETT, HOWARD PATTON, VERONICA NICHOLAS, O.W. HOPPER, JR., ALVIN E. SMITH, LARRY LYNN BAILEY, and JACKSON PAPER MANUFACTURING COMPANY,

Intervenors.

NOTICE OF APPEAL TO THE SUPREME COURT OF THE UNITED STATES

Notice is hereby given that Aluminum Company of America and Tapoco, Inc. appeal to the Supreme Court of the United States from the final judgment of the Supreme Court of North Carolina entered herein on August 13, 1985, rehearing denied

November 5, 1985. This appeal is taken pursuant to 28 U.S.C. § 1257(2).

Respectfully submitted this 24th day of January, 1986.

By: /s/ SAM BEHRENDS, III
LEBOEUF, LAMB, LEIBY & MACRAE
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Of Counsel:
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Dennis P. Harkawik

SUPREME COURT OF NORTH CAROLINA

TENTH DISTRICT

No. 549A84

RUFUS L. EDMISTEN, ATTORNEY GENERAL; PUBLIC STAFF-NORTH CAROLINA UTILITIES COMMISSION; COUNTIES OF CHEROKEE, GRAHAM, JACKSON, MACON and SWAIN; TOWNS OF ANDREWS, BRYSON CITY, DILLSBORO, ROBBINSVILLE, AND SYLVA; TRIBAL COUNCIL OF THE EASTERN BAND OF CHEROKEE INDIANS; HENRY J. TRUETT, HOWARD PATTON, VERONICA NICHOLAS, O.W. HOOPER, JR., ALVIN E. SMITH, AND LARRY LYNN BAILEY,

Appellees,

—v.—

NANTAHALA POWER AND LIGHT COMPANY; TAPOCO, INC. and ALUMINUM COMPANY OF AMERICA,

Appellants,

FROM THE NORTH CAROLINA SUPREME COURT

Case No. 549A84-Utilities

Decided August 13, 1985

NOTICE OF APPEAL TO THE
UNITED STATES SUPREME COURT BY
NANTAHALA POWER AND LIGHT COMPANY

TO THE HONORABLE SUPREME COURT OF
THE UNITED STATES

Applicant Nantahala Power and Light Company (Nantahala) hereby appeals to the United States Supreme Court from the August 13, 1985 judgment of the North Carolina Supreme Court in Case No. 549A84-Utilities. That judgment reversed the North Carolina Utilities Commission's December 22, 1983 order in Docket No. E-13, Sub 44 raising Nantahala's retail rates. Nantahala's appeal is taken pursuant to 28 U.S.C. § 1257(2) (1982).

NANTAHALA POWER AND LIGHT COMPANY

By /s/ EDWARD S. FINLEY, JR.
Counsel

OF COUNSEL:

Edward S. Finley, Jr.
Grady L. Shields
HUNTON & WILLIAMS
Post Office Box 109
Raleigh, North Carolina 27602
(919) 899-3000

APPENDIX J

Supplement to Rule 28.1 Statement

FIRMS (OTHER THAN WHOLLY-OWNED SUBSIDIARIES) IN WHICH ALUMINUM COMPANY OF AMERICA HAS OWNERSHIP INTERESTS

Adela Investment Company S.A.
Alcoa Aluminio S.A.
Alcoa Aluminio do Nordeste S.A.—ALCONOR
Alcoa Mineracao S.A.
Mineracao Ceu Estrelado Limitada
Alumar Administracao De Bens S.A. (Realumar)
Alumar Administracao Industrial S.A. (Alumar)
Companhia Geral De Minas
Imobiliaria Vargem Dos Bois S/C Ltda.
Empresa Imobiliaria Maranhense Ltda.
Ideal Dominicana S.A.
Alcoa-NEC Communications Corp.
Alcoa Nederland B.V.
Alumet Etten B.V.
Intal B.V.
Lips-Levolor B.V.
Alcoa of Australia Limited
A.F.P. Pty. Limited
Alcoa (Bunbury) Pty. Limited
Alcoa of Australia (Asia) Limited
Coala Insurance Company Limited
Dowell Australia Limited
Acme Metal Works, Ltd.
Dowell Brett Pty. Limited
T.G.A. Pty. Limited
The Glass & Aluminum Suppliers Pty. Limited
Portland Smelter Services Pty. Ltd.
Alcoa of Great Britain Limited
Alcoa Extruded Products CUK Limited
Alcoa Manufacturing (G.B.) Limited
MRCP Limited
Aluwhite Electropaint Limited
Alcoa Conductor Accessories, Inc.

Alcoa Fujikura Ltd.
Aludril, Inc.
Aludrum B.V.
Lamitref Aluminum N.V.
Pimalco, Inc.
Induction Billet Corporation
Pimalco Seamless, Inc.
Drumalu B.V.
Forges de Bologne
Hopewell International Insurance Ltd.
United Insurance Company
Universal Insurance Company of Ireland Limited
Delta International Insurance Company Limited
Delta Holdings, Inc.
Delta America Re Insurance Company
Delta International Insurance Company Limited
Lancer Financial Group
Delaney Management Company, Inc.
Lancer Insurance Company
Transit Casualty Syndicate, Inc.
Aguas Industriales "La Presa" A.C.
Capsulas Metalicas, S.A.
Ceramics Process Systems Corporation
Complejo Industrial Pedernales, S.A.
Corporation For Innovation Development (CID)
Greater Lebanon Hotel Enterprises, Inc.
Grupo Aluminio, S.A. de C.V.
Almexa, S.A. de C.V.
Aluminio, S.A. de C.V.
Inmobiliaria Aluminio, S.A. de C.V.
Halco (Mining) Inc.
Boke Service Company, S.A.
Boke Trading, Inc.
Campagnie Des Bauxites De Guinee (CBG)
Inversiones Araco Compania Anonima
Aco, Sociedad Anonima
Flotillera Oriental, Compania Anonima

Aco Inversora, S.A.
Aco, Sociedad Anonima
Aco, Sociedad Anonima
Aco Inversora, S.A.
Aco, Sociedad Anonima
Auto Cabimas, Sociedad Anonima
Inversora Baralt, C.A.
Inversora Central C.A.
Lago Motors, C.A.
Valfor, Sociedad Anonima
Arrendamientos Aco, S.A.
Auto Cabimas, Sociedad Anonima
Auto Caracas, Sociedad Anonima
Auto Oriente Maturin, S.A.
Auto Oriente, S.A.
Aco Alquiler S.A.
Automotriz Vigia S.A.
Agro Andina, S.A.
Automotriz Panamericana, S.A.
Inversora Central C.A.
Lago Motors, Compania Anonima
Tractosur C.A.
Centromotriz Zulia, C.A.
Cummins de Venezuela, S.A. (CUMMINSA)
Fabrica of Carrocerias Centauro, C.A.
Fabrica Nacional De Tractores Y Motores, S.A.
"FANATRACTO"
Hidromex Venezolana C.A.
Inversiones Rialpe, S.A.
Inversora Baralt, C.A.
Inversora Orinoco, C.A.
Lamax S.A.
Aco Inversora, S.A.
Motoriente Ciudad Bolivar C.A.
Motoriente San Felix, S.A.
Motoservicio Ciudad Bolivar, C.A.
Motoriente San Felix, S.A.

Motoriente Ciudad Bolivar, C.A.
Motoservicio San Felix, C.A.
Talleres Unidos De Occidente, C.A.
Centromotriz Zulia, C.A.
Franquicias Unidas Occidente, S.A.
Talleres Unidos De Occidente, C.A.
Automotriz Veritas, S.A.
Flotillera Oriental, Compania Anonima
Talleres Unidos, C.A. (TAUNICA)
Administradora Maracay, C.A.
Amortiguadores, S.A.
Auto Cabimas, Sociedad Anonima
Auto Caracas, Sociedad Anonima
Aco Alquiler S.A.
Aco Alquiler Barquisimeto, S.A.
Aco Alquiler Occidente, S.A.
Aco Alquiler Oriente, S.A.
Flotillas Y Arrendamientos (Floarca), C.A.
Auto Oriente, Sociedad Anonima
Flotillera Oriental, Compania Anonima
Auto Oriente Maturin, S.A.
Flotillera Oriental, Compania Anonima
Autoservicio Maturin, C.A.
Grupo Covenal Mariara, C.A.
Indutrias Fairbanks Morse De Venezuela, S.A.
Inversora Baralt, C.A.
Inversora Central, S.A.
Automotriz Veritas, S.A.
Inversora Covenal, S.A.
Inversiones Auven, C.A.
Inversora Orinoco, C.A.
Aco Alquiler, S.A.
Aco Inversora, S.A.
Auto Oriente Maturin, S.A.
Auto Oriente, Sociedad Anonima
Motoriente Anaco, C.A.
Aco Alquiler Oriente, S.A.

Motoriente Ciudad Bolivar, C.A.
Motoriente El Tigre, C.A.
Aco Alquiler Oriente, C.A.
Motoriente San Felix, C.A.
Occidente Motors, S.A.
Inversora Veritas, S.A.
Lago Motors, Compania Anonima
Immobiliaria Araure (INMAR, S.A.)
Aco Alquiler, S.A.
Cummins de Venezuela, S.A. (CUMMINSA)
Maquinarias Y Servicios Aco, S.A.
Maquinarias Y Servicios Aco, S.A.
Talleres Unidos, C.A. (TAUNICA)
Aco, Sociedad Anonima
Valfor, Sociedad Anonima
Aco Inversora, S.A.
Auto Cabimas, Sociedad Anonima
Auto Inversora Lamax, S.A.
Automotriz, Panamericana, S.A.
Automotriz Vigia, S.A.
Franquicias Unidas Occidente, S.A.
Industrial Vigia, S.A.
Inversora Central, C.A.
Inversora Baralt, C.A.
Lago Motors, C.A.
Tractosur, C.A.
Auto Cabimas, Sociedad Anonima
Aco Inversora, S.A.
Aco, Sociedad Anonima
Amuay Motors, C.A.
Auto Inversora Lamax, S.A.
Auto Servicio Cabimas, Sociedad Anonima
Franquicias Unidas Occidente, S.A.
Amuay Motor, C.A.
Automotriz Veritas, S.A.
Automotriz Veritas, S.A.
Talleres Unidos De Occidente, C.A.

Deformaciones Plasticas de Metales, C.A.
Forauto, C.A.
Aco Alquiler, S.A.
Agroven, C.A.
Grupo Covenal Mariara, C.A.
Inversiones Almonital, C.A.
Filtravedo, S.A.
Procesos Galvanicos, S.A. "PROGAL"
Sicam de Venezuela, S.A.
Fabrica National De Forros Y Accesorios Para Carros, C.A.
Enmar, C.A.
Inversiones Auven, C.A.
C.A. Venezolana de Produccion Renault
Constructora Venezolana de Vehiculos, C.A.
Filtravedo, S.A.
Inversora Covenal, S.A.
Metalmar, C.A.
Industrias Mariara S.A. "INDUMAR"
Tupla, C.A.
Inversiones Metalurgicas, C.A.
Administradora Maracay, C.A.
Amortiguadores, C.A.
La Casa Del Amortiguador, S.A.
Auto-Amortiguadores Maturin S.R.L.
La Casa Del Amortiguador Barquisimeto, S.A.
Sinterizados Del Caribe, C.A.
Estampados Del Caribe, C.A.
Trefilerias Mariara, C.A.—TREMARCA
La Casa Del Amortiguador, S.A.
Tupla, C.A.
Tupla, C.A.
Inversiones Araco Compania Anonima
Inversora Baralt, C.A.
Inversora Central, C.A.
Lago Motors, Compania Anonima
Aco, Sociedad Anonima
Amuay Motors, C.A.

Franquicias Unidas Occidente, S.A.
Auto Inversora Lamax, S.A.
Agroven, C.A.
Aco Alquiler Occidente, S.A.
Indutrial Vigia, S.A.
Aco Inversora, S.A.
Aco, Sociedad Anonima
Auto Cabimas, S.A.
Auto Inversora Lamax, S.A.
Automotriz Panamericana, S.A.
Automotriz Vigia, S.A.
Franquicias Unidas Occidente, S.A.
Inversora Baralt, C.A.
Inversora Central, C.A.
Lago Motors, C.A.
Inversora Central, C.A.
Lamax, S.A.
Aco Alquiler Barquisimeto, S.A.
Occidente Motors, S.A.
Aco Alquiler Barquisimeto, S.A.
Inversiones Rialpe, S.A.
Inversiones Rialpe, S.A.
Mineraria Silius, S.p.A.
Fluorsid, S.p.A.
Moralco Limited
Norsk Alcoa A/S
A/S Skibsinvestering
Norsk Alcoa A/S
Mosal Aluminum
Elkem A/S & Co. (Partnership)
Shibazaki Seisakusho Limited
Shibazaki Metal Print Co., Ltd.
Oak Mountain Office Part, Inc.
n.v. hotelmaatschappij "TORARICA"
Swanal Limited
Universal Adsorbents Incorporated